

DOE/EIA-0208(85-19)  
Distribution Category UC-98

Energy Information Administration  
Washington, D.C.

# Weekly Petroleum Status Report



Data for Week Ended:  
May 3, 1985

Published:  
May 9, 1985



The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policymakers, consumers, analysts, and State and local governments. It is published each Thursday by the Energy Information Administration (EIA). The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday.

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other EIA publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC).

Questions on energy statistics should be addressed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, EI-20  
Energy Information Administration  
Forrestal Building  
Room 1F-048  
Washington, D.C. 20585  
(202) 252-8800

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402  
(202) 783-3238

## CONTENTS

Highlights.....	1
U.S. Petroleum Balance Sheet.....	3
Refinery Activity	
Inputs, Utilization, and Production .....	4
Inputs, Utilization, and Production (Graphs).....	5
Stocks	
Crude Oil and Petroleum Products, U.S. Totals.....	6
Crude Oil and Petroleum Products (Graphs).....	7
Motor Gasoline by Petroleum	
Administration for Defense District.....	8
Motor Gasoline (Graphs).....	9
Distillate Fuel Oil by Petroleum	
Administration for Defense District.....	10
Distillate Fuel Oil (Graphs).....	11
Residual Fuel Oil by Petroleum	
Administration for Defense District.....	12
Residual Fuel Oil (Graphs) .....	13
Imports	
Imports of Crude Oil and Petroleum Products.....	14
Imports of Crude Oil and Petroleum	
Products (Graphs).....	15
Products Supplied	
Petroleum Products Supplied .....	16
Prices	
Refiner Acquisition Cost of Crude Oil.....	17
Average Retail Selling Prices,	
Motor Gasoline and Residential Heating Oil.....	17
World Crude Oil Prices.....	18
World Crude Oil Prices (Graph).....	19
Spot Market Product Prices.....	20
Spot Market Product Prices (Graphs).....	21
Weather	
Weather Summary .....	22
Other Fuels	
Natural Gas in Underground Storage .....	23
Estimates	
Weekly Estimates.....	24
Appendixes:	
A. EIA Weekly Data: Survey Design and Estimation	
Methods.....	25
B. Interpretation and Derivation of Average	
Inventory Levels.....	26
C. Projection of Products Supplied from the	
Short-Term Energy Outlook.....	27
D. Calculation of World Oil Prices.....	28
Glossary.....	29
Sources.....	31
Electronic Publication Announcement.....	33

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

## HIGHLIGHTS

### Refinery Activity

Crude oil input to refineries averaged 11.8 million barrels per day for the four weeks ending May 3, 1985. Refinery capacity utilization averaged 76.7 percent during the period. During the four weeks ending May 3, 1985, motor gasoline production averaged 6.3 million barrels per day and distillate fuel oil production averaged 2.5 million barrels per day.

### Stocks

On May 3, 1985, stocks of crude oil (excluding the Strategic Petroleum Reserve) stood at 351.3 million barrels, about 1 percent above the level one year ago. Stocks of total motor gasoline, at 210.8 million barrels, were about 15 percent below the level one year ago. Distillate fuel oil stocks stood at 96.6 million barrels, about 1 percent below the level one year ago. Stocks of residual fuel oil stood at 44.7 million barrels, about 5 percent below the level one year ago.

### Imports

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 4.3 million barrels per day for the four weeks ending May 3, 1985, about 7 percent below the average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 3.6 million barrels per day for the four-week period ending May 3, 1985.

### Products Supplied

Total petroleum products supplied averaged 15.0 million barrels per day for the four-week period ending May 3, 1985, which is about 3 percent below the rate supplied a year ago. Motor gasoline was supplied at a rate of 6.8 million barrels per day, which is about 2 percent above the rate supplied a year ago. Distillate fuel oil was supplied at a rate of 2.7 million barrels per day, about 6 percent below the rate supplied a year ago.

### World Crude Oil Price

The following crude oil suppliers announced official price changes last week:

- o a decrease in the contract price of Gabon's Mandji crude oil by 50 cents to \$27.50 a barrel, retroactive to March 1.
- o an increase in the British National Oil Corporation (BNOC) purchasing price of Brent Blend by 40 cents to \$27.90 a barrel, effective May 1.
- o a decrease in the contract price of Oman crude oil by 65 cents to \$27.35 a barrel, retroactive to April 1.
- o a decrease in the export price of the U.S.S.R. Export Blend (also called "Urals") by \$1.00 to \$27.00 a barrel, effective May 1.

As a result of the price changes noted above, the weighted average international price of crude oil as of May 7, 1985, is estimated to be \$27.69 a barrel.

### Spot Market Product Prices

For the week ending May 3, 1985, the average spot market price of 98 octane premium leaded gasoline on the Rotterdam market increased 35 cents to \$33.35 a barrel; the gasoil price decreased \$1.34 to \$29.69 a barrel, and the price of residual fuel oil decreased 44 cents to \$23.50 a barrel.

On the New York market, the average spot price of 89 octane regular gasoline decreased 32 cents to \$34.02 a barrel; the price of No. 2 heating oil decreased \$1.05 to \$31.61 a barrel, and the price of residual fuel oil decreased 75 cents to \$25.00 a barrel.



## U.S. PETROLEUM BALANCE SHEET

Petroleum Supply (Thousand Barrels per Day)	Four Week Averages For Period Ending		Percent Change	Cumulative Daily Averages 122 Days		Percent Change
	05/03/85	05/03/84		1985	1984	
<b>Crude Oil Supply</b>						
(1) Domestic Production <sup>1</sup>	E8,851	8,693	1.8	E8,908	8,698	2.4
(2) Net Imports (Including SPR) <sup>2</sup>	3,583	3,278	9.3	2,742	3,041	-9.8
(3) Gross Imports (Excluding SPR)	3,648	3,278	11.3	2,794	3,074	-9.1
(4) SPR Imports	117	175	--	123	153	--
(5) Exports	E183	175	4.1	E175	187	-6.4
(6) SPR Stocks Withdrawn (+) or Added (-)	-119	-174	--	-123	-149	--
(7) Other Stocks Withdrawn (+) or Added (-)	-1,004	-392	--	-108	-37	--
(8) Products Supplied and Losses	E-69	-64	--	E-68	-65	--
(9) Unaccounted-for Crude	555	577	--	164	390	--
(10) Crude Oil Input to Refineries	11,798	11,918	-1.0	11,513	11,879	-3.1
<b>Other Supply</b>						
(11) NGL Production	E1,636	1,616	1.2	E1,638	1,604	2.1
(12) Other Hydrocarbon Input and Alcohol Input	E41	44	-6.4	E40	46	-13.1
(13) Crude Oil Product Supplied	E68	64	5.7	E67	64	5.8
(14) Processing Gain	560	578	-3.0	506	550	-7.9
(15) Net Product Imports <sup>3</sup>	765	1,421	-46.2	947	1,689	-43.9
(16) Gross Product Imports <sup>3</sup>	1,406	1,908	-26.3	1,608	2,168	-25.8
(17) Product Exports	E642	488	31.6	E661	479	37.9
(18) Product Stocks Withdrawn (+) or Added (-) <sup>4</sup>	143	-150	--	898	79	--
(19) Total Product Supplied for Domestic Use	15,009	15,490	-3.1	15,611	15,910	-1.9
<b>Products Supplied</b>						
(20) Motor Gasoline	6,849	6,696	2.3	6,550	6,433	1.8
(21) Naphtha-type Jet Fuel	263	242	8.9	222	210	6.0
(22) Kerosene-type Jet Fuel	942	907	3.9	954	930	2.6
(23) Distillate Fuel Oil	2,744	2,922	-6.1	3,146	3,131	0.5
(24) Residual Fuel Oil	952	1,347	-29.3	1,223	1,640	-25.5
(25) Other Oils Supplied <sup>5</sup>	3,259	3,376	-3.5	3,516	3,567	-1.4
(26) Total Products Supplied	15,009	15,490	-3.1	15,611	15,910	-1.9
<b>Petroleum Stocks (Million Barrels)</b>						
	05/03/85	04/26/85	05/03/84	Percent Change from Previous Week Year Ago		
Crude Oil (Excluding SPR) <sup>6</sup>	351.3	343.4	348.4	2.3	0.8	
Total Motor Gasoline	210.8	211.0	248.3	-0.1	-15.1	
Finished Motor Gasoline	177.8	178.6	207.6	-0.4	-14.3	
Blending Components	32.9	32.4	40.7	1.5	-19.2	
Naphtha-type Jet Fuel	5.8	6.1	6.7	-5.7	-13.9	
Kerosene-type Jet Fuel	36.5	36.2	34.0	0.7	7.2	
Distillate Fuel Oil	96.6	95.9	97.9	0.7	-1.3	
Residual Fuel Oil	44.7	47.9	47.3	-6.6	-5.5	
Unfinished Oils	108.3	108.0	120.4	0.2	-10.1	
Other Oils <sup>7</sup>	E150.8	E149.4	166.6	1.0	-9.5	
Total Stocks (Excluding SPR)	1,004.7	998.0	1,069.5	0.7	-6.1	
Crude Oil In SPR	464.9	464.1	397.4	0.2	17.0	
Total Stocks (Including SPR)	1,469.6	1,462.0	1,466.9	0.5	0.2	

E=Estimate based on monthly data.

1 Includes lease condensate.

2 Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5).

3 Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

4 Includes an estimate of minor product stock change based on monthly data.

5 Includes crude oil product supplied, natural gas liquids, liquefied refinery gases, other liquids, and all finished petroleum products except motor gasoline, jet fuels, and distillate and residual fuel oils.

6 Includes crude oil in transit to refineries.

7 Included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

For the current two weeks, stocks of these minor products are estimated from monthly data. (See Glossary: Stock Change (Refined Products)).

Note: Due to independent rounding, individual product detail may not add to total. The percentages shown are calculated using unrounded numbers.

Source: o 1984-1985 Monthly Data: EIA, "Petroleum Supply Monthly."

o 1985 Four-Week Averages: Estimates based on EIA weekly data.

REFINERY ACTIVITY  
(Million Barrels per Day)

Inputs and Utilization

Year/Element	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Crude Oil Input	11.1	10.6	10.9	11.4	11.8	12.3	12.4	12.2	12.5	11.8	12.0	11.2
Gross Inputs	11.5	11.0	11.1	11.7	12.1	12.6	12.6	12.4	12.7	12.0	12.2	11.4
Operable Capacity	16.9	16.9	16.9	16.9	16.9	16.9	16.8	16.8	16.7	16.3	16.3	16.3
Percentage Utilization <sup>1</sup>	68.0	65.1	66.0	69.6	71.6	74.9	74.9	73.8	78.1	73.4	74.8	69.9
1984												
Crude Oil Input	11.6	12.1	11.9	11.9	12.2	12.3	12.1	12.4	12.3	12.0	12.1	11.8
Gross Inputs	11.8	12.3	12.1	12.1	12.4	12.4	12.2	12.6	12.5	12.2	12.2	11.9
Operable Capacity	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.0	16.0	16.0	15.9	15.7
Percentage Utilization <sup>1</sup>	72.9	76.1	75.0	74.8	77.2	77.1	76.0	78.4	78.4	76.0	77.1	75.9
1985												
Crude Oil Inputs	11.5	11.4										
Gross Inputs	11.6	11.5										
Operable Capacity	15.4	15.6										
Percentage Utilization <sup>1</sup>	75.1	73.7										

Average for Four-Week Period Ending:

1985	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03
Crude Oil Input	11.5	11.4	11.4	11.4	11.4	11.4	11.5	11.7	11.7	11.8
Gross Inputs	11.6	11.5	11.5	11.5	11.6	11.6	11.7	11.8	11.9	11.9
Operable Capacity	E15.7	E15.7	E15.7	E15.4	E15.4	E15.4	E15.4	E15.4	E15.6	E15.6
Percentage Utilization <sup>1</sup>	73.6	73.3	73.2	74.6	74.9	75.1	75.6	76.3	76.3	76.7

Production by Product

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Motor Gasoline	6.1	5.8	5.9	6.2	6.4	6.7	6.7	6.5	6.6	6.2	6.6	6.3
Jet Fuel	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1	0.9
Distillate Fuel Oil	2.3	2.1	2.0	2.2	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.5
Residual Fuel Oil	1.0	0.9	0.8	0.9	0.9	0.8	0.8	0.7	0.8	0.8	0.8	0.9
1984												
Motor Gasoline	6.0	6.3	6.4	6.5	6.6	6.6	6.5	6.4	6.5	6.4	6.7	6.5
Jet Fuel	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.1
Distillate Fuel Oil	2.6	2.9	2.5	2.3	2.6	2.9	2.7	2.7	2.7	2.7	2.8	2.8
Residual Fuel Oil	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.1
1985												
Motor Gasoline	5.9	5.9										
Jet Fuel	1.1	1.1										
Distillate Fuel Oil	2.6	2.5										
Residual Fuel Oil	1.0	1.0										

Average for Four-Week Period Ending:

1985	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03
Motor Gasoline	5.8	5.9	5.9	5.9	5.9	6.0	6.1	6.2	6.3	6.3
Jet Fuel	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Distillate Fuel Oil	2.5	2.4	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.5
Residual Fuel Oil	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9

E=Estimate based on most recent monthly data.

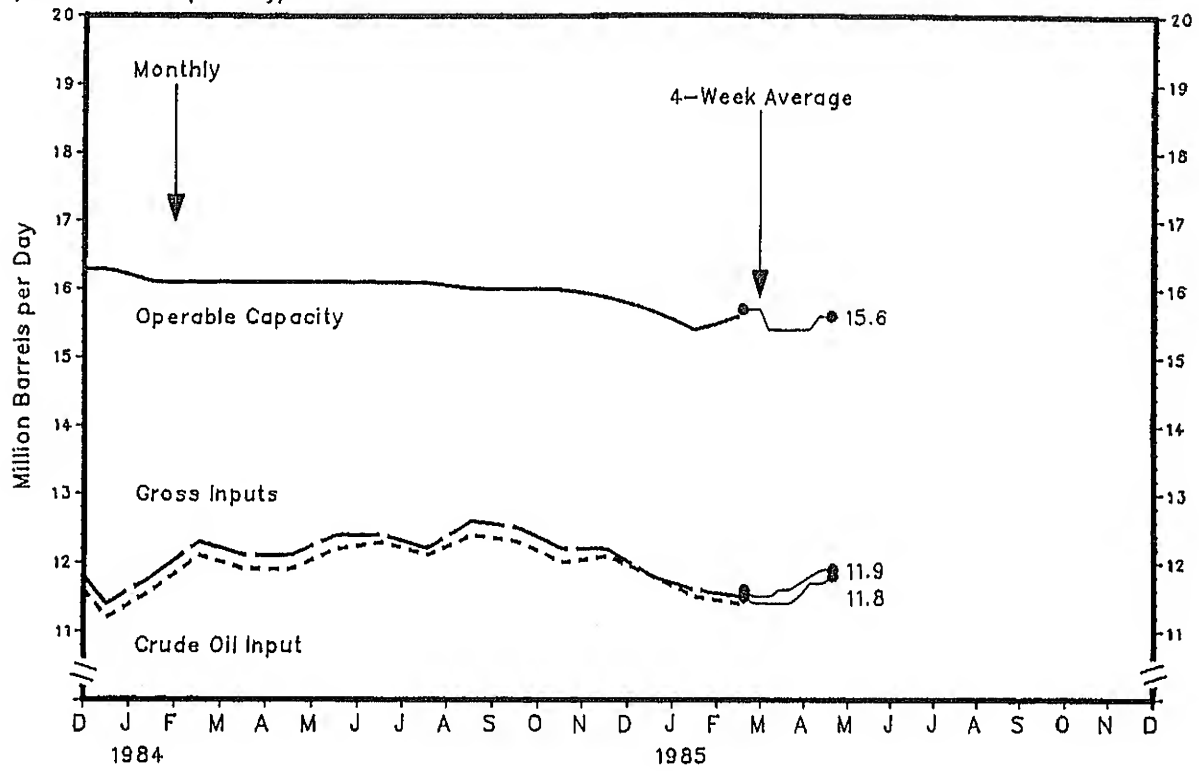
<sup>1</sup> Percentage utilization is calculated as four-week average gross inputs divided by the latest reported monthly operable capacity. See Glossary. Percentages are calculated using unrounded numbers.

Note: Production statistics represent net production (i.e., refinery output minus refinery input).

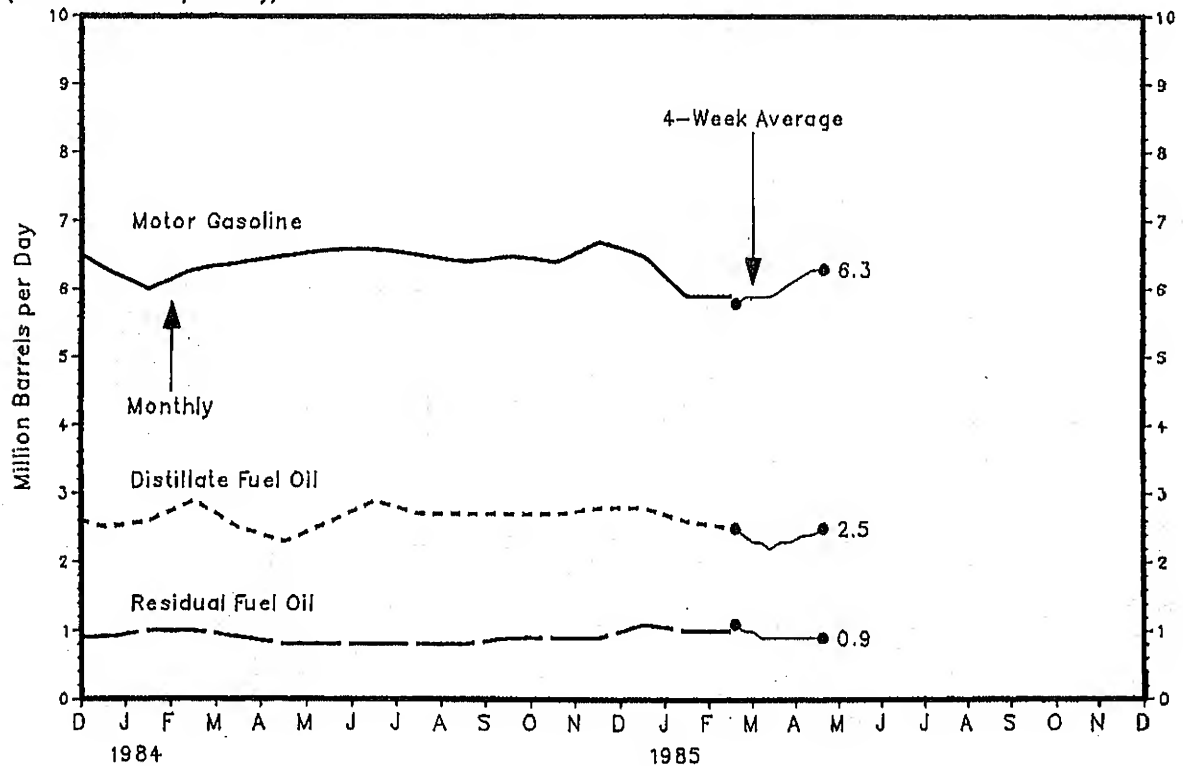
Source: See Sources Section of this publication.

## Refinery Activity

Inputs and Utilization  
(Million Barrels per Day)



Production by Product  
(Million Barrels per Day)



Source: See Sources Section of this publication.

STOCKS OF CRUDE OIL AND PETROLEUM PRODUCTS<sup>1</sup>, U.S. TOTALS  
(Million Barrels)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1983</b>												
Crude Oil <sup>2</sup>	359.8	363.3	355.0	361.2	352.5	350.5	335.1	348.7	346.7	348.9	341.4	343.9
Motor Gasoline	249.7	250.2	223.0	220.7	223.1	222.6	230.5	226.3	229.1	227.4	235.8	222.4
Finished Gasoline	207.2	206.5	182.7	182.8	185.3	182.8	189.8	184.8	189.3	187.1	196.0	185.5
Blending Components	42.5	43.8	40.4	37.9	37.8	39.7	40.7	41.5	39.8	40.3	39.8	36.9
Jet Fuel	40.7	39.4	41.6	40.3	41.1	41.1	40.8	40.0	41.4	43.2	45.6	38.6
Distillate Fuel Oil	167.6	148.2	118.1	103.1	108.9	113.7	130.7	142.4	154.0	162.6	161.2	140.3
Residual Fuel Oil	60.5	53.3	46.3	46.6	51.0	49.9	51.9	48.3	49.7	51.2	54.2	48.5
Unfinished Oils	110.6	108.7	111.8	114.6	113.1	110.8	108.0	110.6	112.9	112.2	109.1	108.0
Other Oils <sup>3</sup>	162.9	161.0	163.9	170.2	176.9	184.4	188.8	191.5	190.6	194.9	190.9	172.9
Total (Excl. SPR)	1,151.9	1,124.1	1,059.7	1,056.6	1,066.7	1,073.0	1,085.8	1,107.7	1,124.3	1,140.3	1,138.3	1,074.5
Crude Oil in SPR	300.6	306.1	311.8	317.7	326.8	332.5	340.7	351.8	361.0	367.2	371.3	379.1
Total (Incl. SPR)	1,452.5	1,430.3	1,371.6	1,374.4	1,393.5	1,405.5	1,426.4	1,459.5	1,485.3	1,507.5	1,509.6	1,453.6
<b>1984</b>												
Crude Oil <sup>2</sup>	348.4	340.2	335.7	347.6	359.1	352.7	348.2	334.9	325.3	342.9	343.1	343.5
Motor Gasoline	225.5	237.1	243.2	248.0	252.7	245.4	238.5	225.1	234.6	232.5	240.0	243.5
Finished Gasoline	185.5	196.6	202.8	207.4	210.7	204.1	200.1	186.6	194.5	193.2	198.4	205.4
Blending Components	39.9	40.5	40.5	40.6	42.1	41.3	38.4	38.5	40.1	39.4	41.6	38.1
Jet Fuel	35.6	39.0	40.6	40.7	40.9	42.9	43.6	45.6	45.2	44.6	44.9	42.0
Distillate Fuel Oil	119.5	132.2	109.6	97.8	98.2	112.9	124.5	133.5	143.2	152.4	160.8	161.1
Residual Fuel Oil	45.4	57.6	47.6	47.4	46.3	46.8	49.2	44.7	47.0	50.8	47.2	53.2
Unfinished Oils	110.8	109.6	115.7	120.3	122.2	110.8	106.0	106.1	108.5	111.2	105.6	93.7
Other Oils <sup>3</sup>	160.5	160.9	159.7	166.2	173.1	177.0	179.7	180.7	179.3	172.9	171.0	167.5
Total (Excl. SPR)	1,045.6	1,076.7	1,052.2	1,068.0	1,092.5	1,088.4	1,089.7	1,070.6	1,083.1	1,107.2	1,112.7	1,104.6
Crude Oil in SPR	384.4	387.2	391.8	396.9	404.5	413.7	423.9	429.5	431.1	438.2	443.0	450.5
Total (Incl. SPR)	1,430.0	1,463.9	1,444.0	1,464.8	1,497.0	1,502.2	1,513.6	1,500.1	1,514.2	1,545.5	1,555.7	1,555.1
<b>1985</b>												
Crude Oil <sup>2</sup>	336.1	325.5										
Motor Gasoline	234.0	226.8										
Finished Gasoline	197.8	190.0										
Blending Components	36.2	36.8										
Jet Fuel	41.0	41.7										
Distillate Fuel Oil	141.8	121.5										
Residual Fuel Oil	46.8	47.0										
Unfinished Oils	100.4	99.7										
Other Oils <sup>3</sup>	152.3	145.1										
Total (Excl. SPR)	1,052.4	1,007.3										
Crude Oil in SPR	457.4	460.1										
Total (Incl. SPR)	1,509.8	1,467.4										
<b>Week Ending:</b>												
<b>1985</b>	<b>03/01</b>	<b>03/08</b>	<b>03/15</b>	<b>03/22</b>	<b>03/29</b>	<b>04/05</b>	<b>04/12</b>	<b>04/19</b>	<b>04/26</b>	<b>05/03</b>		
Crude Oil <sup>2</sup>	320.1	324.5	328.7	331.8	334.5	323.2	325.9	330.9	343.4	351.3		
Motor Gasoline	224.8	223.0	220.4	218.5	217.7	216.8	212.8	213.0	211.0	210.8		
Finished Gasoline	188.9	187.5	184.5	183.5	182.6	183.6	179.3	180.7	178.6	177.8		
Blending Components	35.9	35.5	35.9	35.0	35.1	33.2	33.5	32.3	32.4	32.9		
Jet Fuel	41.3	40.9	42.3	41.4	42.3	42.9	42.0	42.2	42.3	42.2		
Distillate Fuel Oil	123.7	117.6	110.0	103.8	98.5	98.2	97.3	96.3	95.9	96.6		
Residual Fuel Oil	46.2	46.3	45.4	46.6	45.7	45.4	45.4	46.4	47.9	44.7		
Unfinished Oils	94.8	97.2	99.1	103.0	102.3	105.1	105.0	107.8	108.0	108.3		
Other Oils <sup>3</sup>	E153.1	E152.9	E152.8	E148.4	E148.3	E149.0	E150.3	E151.7	E149.4	E150.8		
Total (Excl. SPR)	1,003.9	1,002.4	998.7	993.4	989.4	980.6	978.8	988.3	998.0	1,004.7		
Crude Oil in SPR	459.5	460.1	460.4	461.0	461.3	461.6	462.0	462.4	464.1	464.9		
Total (Incl. SPR)	1,463.4	1,462.6	1,459.1	1,454.4	1,450.6	1,442.2	1,440.8	1,450.7	1,462.0	1,469.6		

E=Estimated. See Glossary for definition of "Stock Change (Refined Products)" for explanation of other oils estimation methodology.

1 Product stocks include those stocks held at refineries, in pipelines, and at major bulk terminals. Stocks held at natural gas processing plants are included in "Other Oils" and in totals. All stock levels are as of the end of the period.

2 Crude oil stocks include those stocks held at refineries, in pipelines, in lease tanks, and in transit to refineries, and do not include those held in the Strategic Petroleum Reserve.

3 Included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

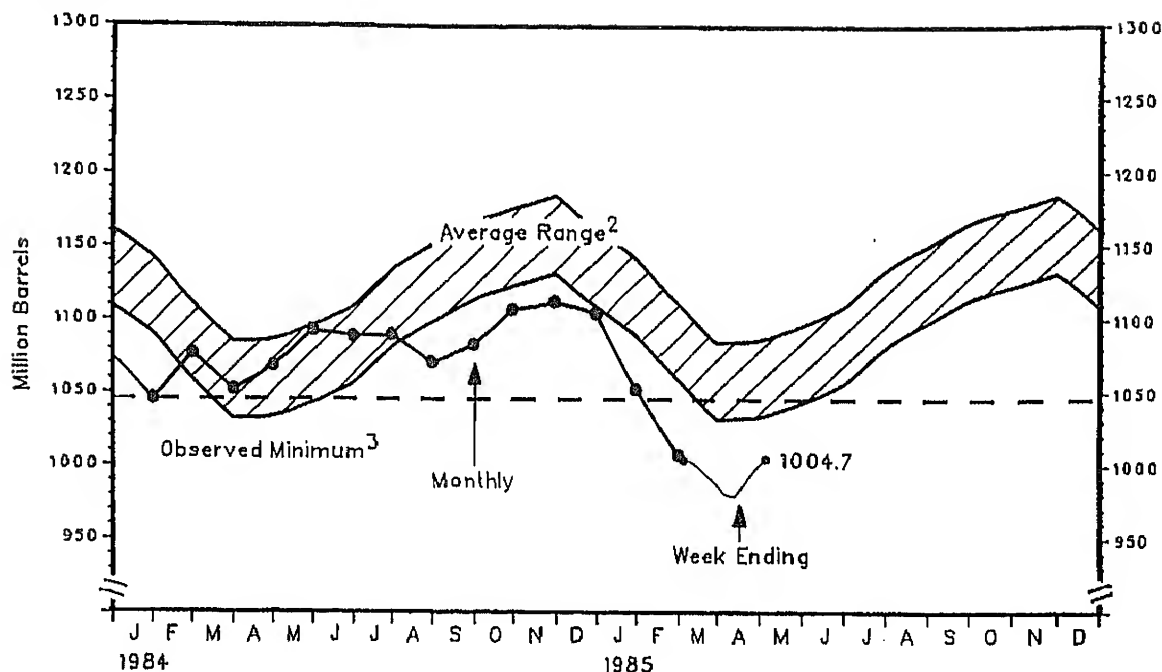
Note: Data may not add to total due to independent rounding.

Source: See Sources Section of this publication.

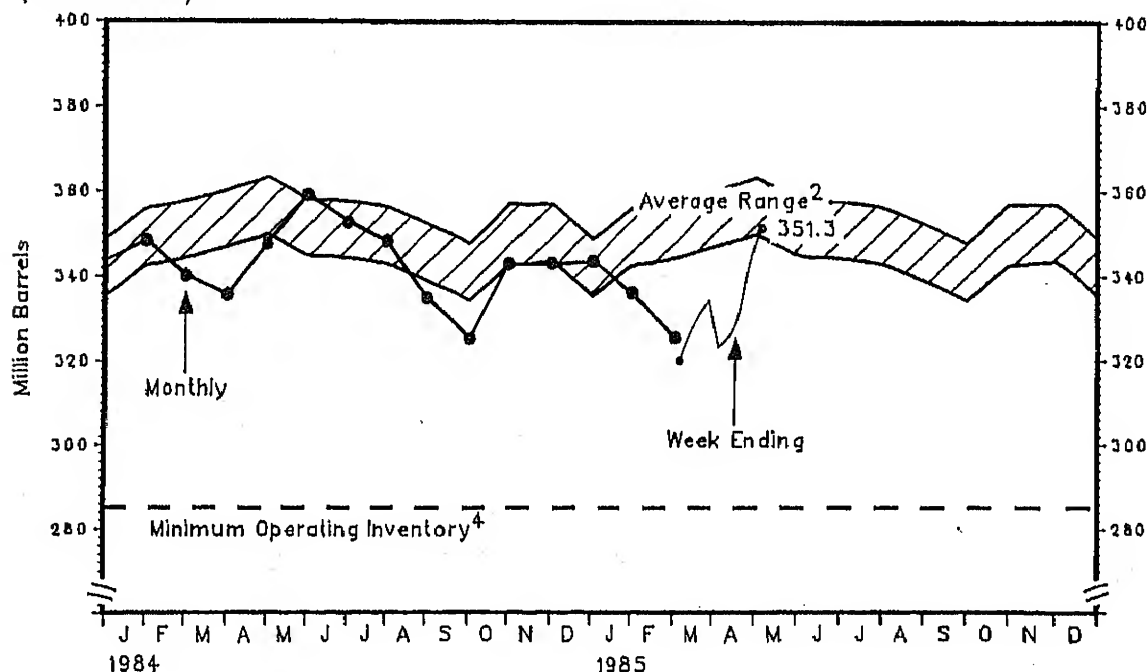


## Stocks

Crude Oil and Petroleum Products, U.S. Total<sup>1</sup>  
(Million Barrels)



Crude Oil, U.S. Total<sup>1</sup>  
(Million Barrels)



<sup>1</sup> Excludes stocks held in the Strategic Petroleum Reserve and includes crude oil in transit to refineries.

<sup>2</sup> Average level, width of average range, and observed minimum are based on three years of monthly data: January 1982–December 1984. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.

<sup>3</sup> The observed minimum for total stocks in the last three-year period, January 1982–December 1984, was 1045.6 million barrels. It occurred in January 1984. See Appendix B for further explanation.

<sup>4</sup> The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for crude oil to be 285 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

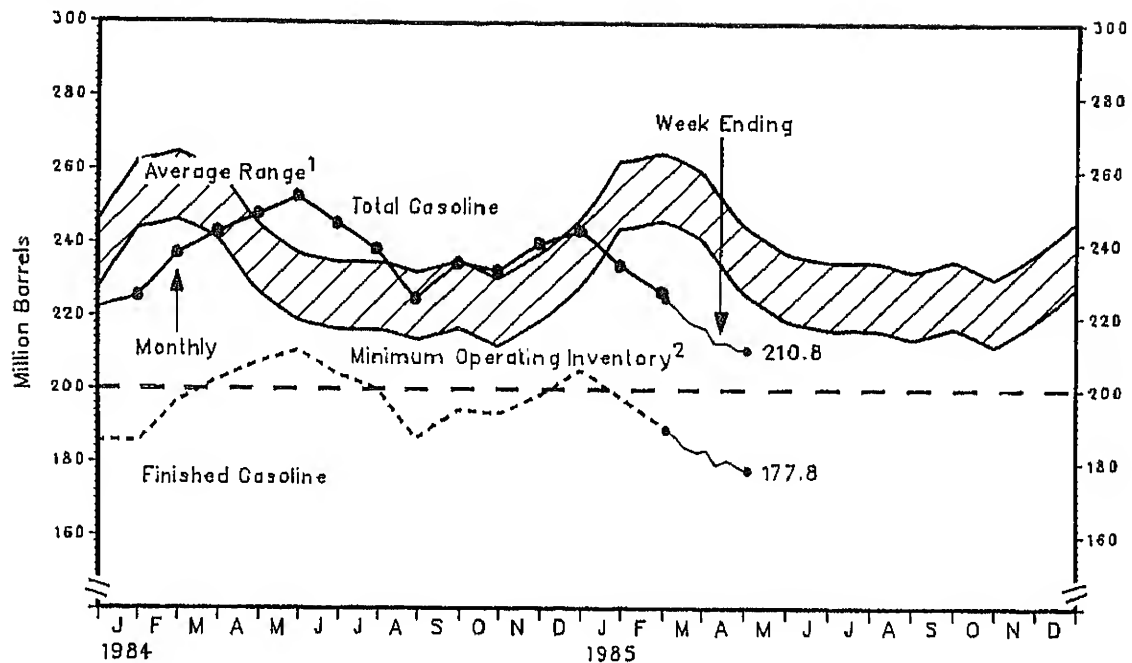
STOCKS OF MOTOR GASOLINE BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1983</b>												
Finished Gasoline	207.2	206.5	182.7	182.8	185.3	182.8	189.8	184.8	189.3	187.1	196.0	185.5
Blending Components	42.5	43.8	40.4	37.9	37.8	39.7	40.7	41.5	39.8	40.3	39.8	36.9
Total Gasoline	249.7	250.2	223.0	220.7	223.1	222.6	230.5	226.3	229.1	227.4	235.8	222.4
East Coast (PADD 1)	70.2	66.0	55.3	60.8	63.1	61.3	64.4	62.6	64.1	61.7	63.5	63.8
Midwest (PADD 2)	75.2	77.4	68.3	65.3	63.7	63.7	64.2	64.4	65.4	64.4	68.4	63.7
Gulf Coast (PADD 3)	63.9	65.5	65.4	62.6	63.9	64.2	65.3	62.4	64.8	67.9	69.9	60.1
Rocky Mountain (PADD 4)	9.4	9.4	8.3	7.9	7.4	6.7	6.4	5.9	5.9	6.3	7.4	7.7
West Coast (PADD 5)	31.0	31.9	25.8	24.1	25.0	26.6	30.3	30.8	28.9	27.1	26.6	27.0
<b>1984</b>												
Finished Gasoline	185.5	196.6	202.8	207.4	210.7	204.1	200.1	186.6	194.5	193.2	198.4	205.4
Blending Components	39.9	40.5	40.5	40.6	42.1	41.3	38.4	38.5	40.1	39.4	41.6	38.1
Total Gasoline	225.5	237.1	243.2	248.0	252.7	245.4	238.5	225.1	234.6	232.5	240.0	243.5
East Coast (PADD 1)	61.4	65.2	65.2	66.9	71.1	69.3	72.2	66.0	64.9	63.3	63.5	67.8
Midwest (PADD 2)	63.2	68.4	71.1	71.4	68.3	65.5	64.7	62.7	66.9	65.5	67.5	72.4
Gulf Coast (PADD 3)	62.6	66.2	71.1	72.5	73.0	71.0	65.2	63.2	69.8	69.6	71.3	63.6
Rocky Mountain (PADD 4)	8.4	8.7	9.0	8.7	8.8	7.9	7.5	6.4	6.2	6.3	7.0	7.9
West Coast (PADD 5)	29.9	28.6	26.8	28.5	31.5	31.7	29.0	26.9	26.8	27.9	30.7	31.8
<b>1985</b>												
Finished Gasoline	197.8	190.0										
Blending Components	36.2	36.8										
Total Gasoline	234.0	226.8										
East Coast (PADD 1)	62.3	60.7										
Midwest (PADD 2)	71.1	67.5										
Gulf Coast (PADD 3)	59.7	61.1										
Rocky Mountain (PADD 4)	8.5	8.5										
West Coast (PADD 5)	32.5	29.1										
<b>Week Ending:</b>												
<b>1985</b>	<b>03/01</b>	<b>03/08</b>	<b>03/15</b>	<b>03/22</b>	<b>03/29</b>	<b>04/05</b>	<b>04/12</b>	<b>04/19</b>	<b>04/26</b>	<b>05/03</b>		
Finished Gasoline	188.9	187.5	184.5	183.5	182.6	183.6	179.3	180.7	178.6	177.8		
Blending Components	35.9	35.5	35.9	35.0	35.1	33.2	33.5	32.3	32.4	32.9		
Total Gasoline	224.8	223.0	220.4	218.5	217.7	216.8	212.8	213.0	211.0	210.8		
East Coast (PADD 1)	59.7	60.7	60.2	61.1	60.9	60.0	56.7	60.4	58.6	59.1		
Midwest (PADD 2)	66.8	66.7	68.0	65.0	64.1	66.2	63.2	60.8	60.3	58.3		
Gulf Coast (PADD 3)	60.7	59.2	57.9	58.2	58.6	57.8	60.4	57.8	57.8	59.0		
Rocky Mountain (PADD 4)	8.2	8.2	7.8	8.1	7.9	7.7	7.4	7.2	6.9	6.6		
West Coast (PADD 5)	29.3	28.3	26.6	26.2	26.2	25.1	25.1	26.8	27.5	27.8		

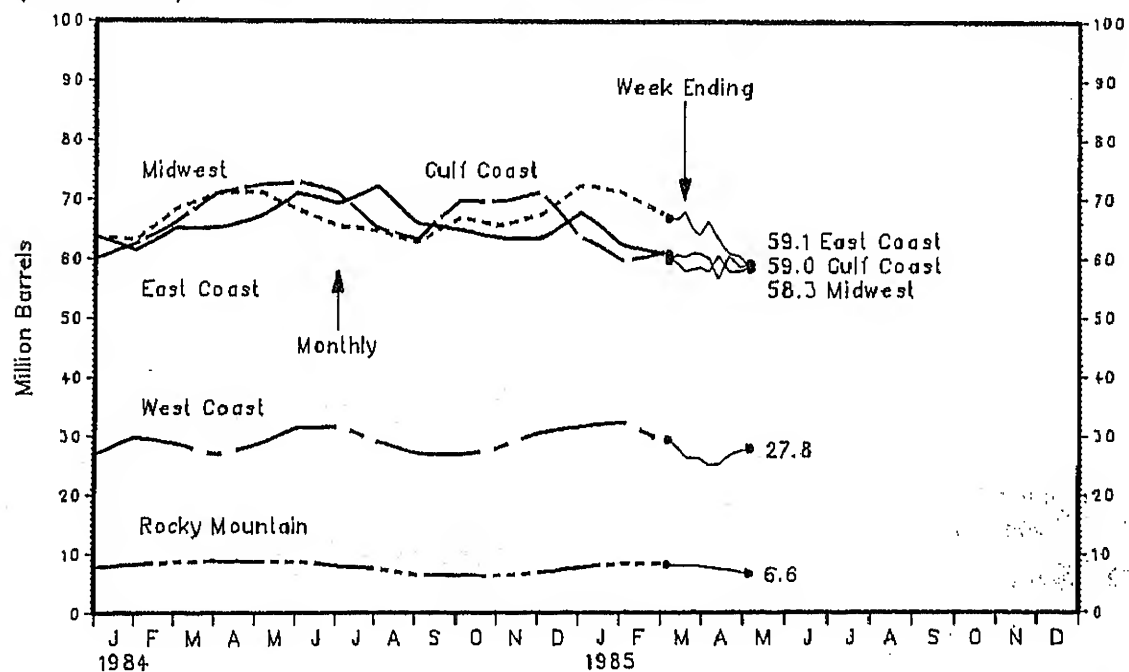
Note: PAD District data may not add to total due to independent rounding.  
Source: See Sources Section of this publication.

## Stocks

Motor Gasoline, U.S. Total  
(Million Barrels)



Motor Gasoline by Petroleum Administration for Defense District  
(Million Barrels)



1 Average level, width of average range, and observed minimum are based on three years of monthly data: January 1982–December 1984. The seasonal pattern is based on six years of monthly data. See Appendix B for further explanation.

2 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for total motor gasoline to be 200 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

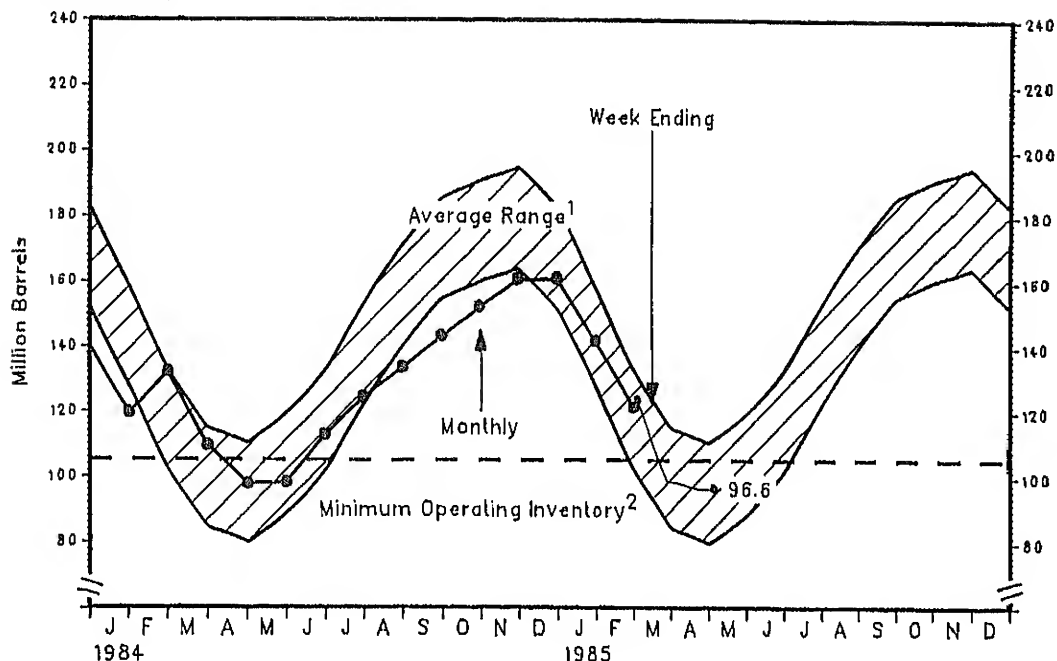
STOCKS OF DISTILLATE FUEL OIL BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Total U.S.	167.6	148.2	118.1	103.1	108.9	113.7	130.7	142.4	154.0	162.6	161.2	140.3
East Coast(PADD 1)	71.1	55.5	38.0	31.8	36.9	41.0	50.9	61.7	67.5	74.6	70.7	57.7
Midwest(PADD 2)	47.1	46.5	39.0	33.2	30.4	29.6	33.3	36.3	38.6	40.3	42.8	40.2
Gulf Coast(PADD 3)	31.2	28.9	26.7	26.0	28.7	29.7	32.4	30.8	34.4	34.4	33.8	27.8
Rocky Mountain(PADD 4)	4.1	4.0	3.3	2.8	2.9	2.8	3.0	3.0	2.7	2.6	2.8	3.3
West Coast(PADD 5)	14.0	13.4	11.1	9.3	9.9	10.6	11.0	10.6	10.8	10.7	11.2	11.3
1984												
Total U.S.	119.5	132.2	109.6	97.8	98.2	112.9	124.5	133.5	143.2	152.4	160.8	161.1
East Coast(PADD 1)	43.4	54.4	37.3	29.8	32.5	39.9	45.3	49.2	57.5	71.8	74.9	72.8
Midwest(PADD 2)	37.1	37.0	33.5	30.2	27.1	31.7	36.2	39.3	38.6	36.4	37.5	43.7
Gulf Coast(PADD 3)	24.7	26.8	24.2	23.0	23.6	26.1	28.2	30.6	32.5	29.9	33.0	29.0
Rocky Mountain(PADD 4)	3.4	3.2	3.4	3.3	3.4	3.5	3.6	3.5	3.3	3.2	3.5	3.7
West Coast(PADD 5)	10.8	10.8	11.3	11.5	11.5	11.6	11.3	11.0	11.2	11.0	11.9	11.9
1985												
Total U.S.	141.8	121.5										
East Coast(PADD 1)	55.6	43.4										
Midwest(PADD 2)	44.3	40.2										
Gulf Coast(PADD 3)	27.4	23.9										
Rocky Mountain(PADD 4)	3.7	3.5										
West Coast(PADD 5)	10.7	10.5										
Week Ending:												
1985	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03		
Total U.S.	123.7	117.6	110.0	103.8	98.5	98.2	97.3	96.3	95.9	96.6		
East Coast(PADD 1)	45.4	42.7	39.0	34.7	31.7	32.6	32.3	32.3	32.1	32.0		
Midwest(PADD 2)	40.4	38.8	36.1	34.0	32.0	31.1	30.4	28.7	28.3	27.9		
Gulf Coast(PADD 3)	24.1	22.5	20.9	21.5	21.6	21.5	22.4	23.1	23.7	24.7		
Rocky Mountain(PADD 4)	3.2	3.2	3.0	2.9	2.8	2.6	2.4	2.3	2.1	2.0		
West Coast(PADD 5)	10.5	10.3	10.9	10.8	10.5	10.4	9.8	9.9	9.7	10.0		

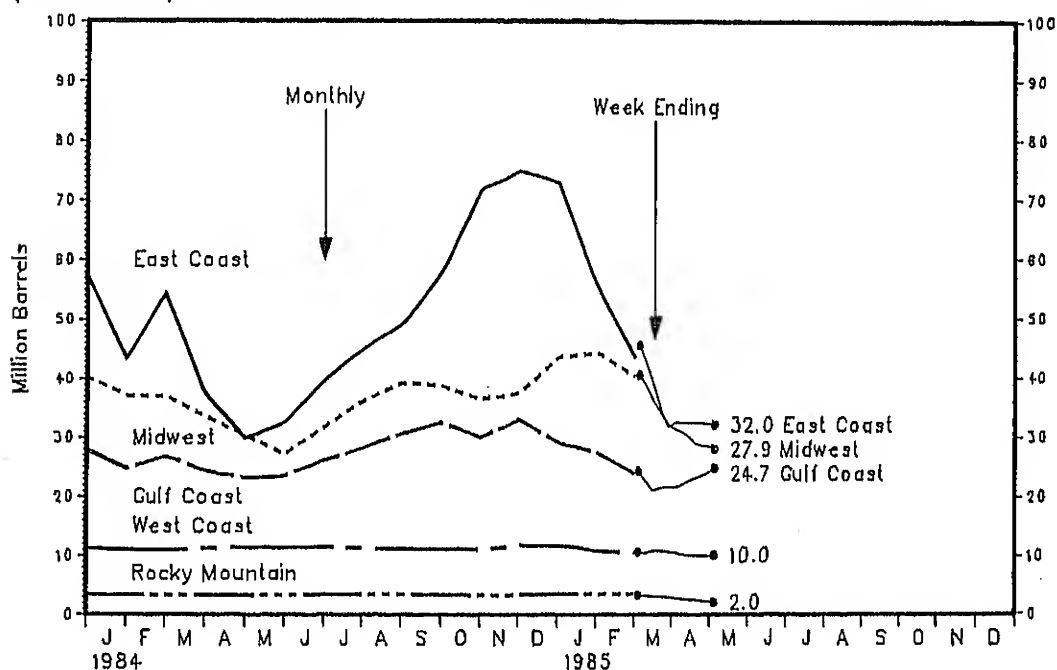
Note: PAD District data may not add to total due to rounding.  
Source: See Sources Section of this publication.

## Stocks

Distillate Fuel Oil, U.S. Total  
(Million Barrels)



Distillate Fuel Oil by Petroleum Administration for Defense District  
(Million Barrels)



¹ Average level, width of average range, and observed minimum are based on three years of monthly data: January 1982–December 1984. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.

² The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for distillate fuel oil to be 105 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

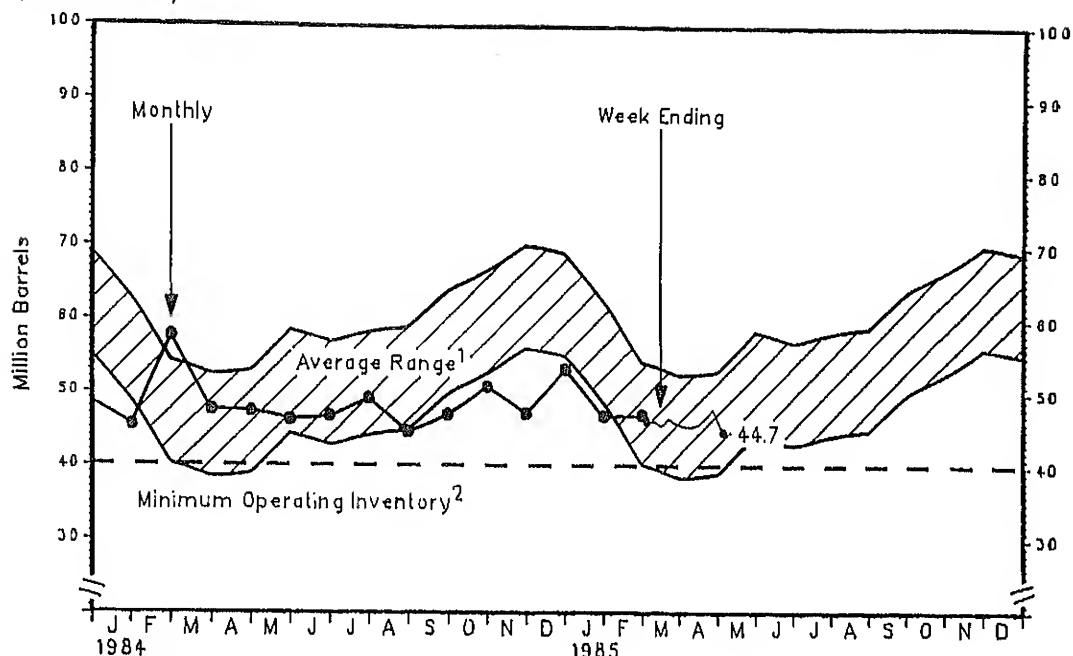
STOCKS OF RESIDUAL FUEL OIL BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1983</b>												
Total U.S.	60.5	53.3	46.3	46.6	51.0	49.9	51.9	48.3	49.7	51.2	54.2	48.5
East Coast(PADD 1)	29.8	25.3	20.6	20.2	23.8	24.2	25.3	23.8	23.5	25.2	29.3	24.8
Midwest(PADD 2)	5.0	4.4	3.6	3.4	3.5	3.7	3.7	3.7	3.5	3.8	3.6	4.0
Gulf Coast(PADD 3)	16.2	14.0	12.8	13.4	14.5	13.1	13.7	13.2	13.8	13.5	12.3	11.0
Rocky Mountain(PADD 4)	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5
West Coast(PADD 5)	8.9	9.1	8.9	9.0	8.5	8.4	8.6	7.1	8.5	8.3	8.5	8.2
<b>1984</b>												
Total U.S.	45.4	57.6	47.6	47.4	46.3	46.8	49.2	44.7	47.0	50.8	47.2	53.2
East Coast(PADD 1)	21.0	30.8	24.4	22.7	23.1	21.9	24.7	21.9	25.0	26.8	24.2	29.1
Midwest(PADD 2)	3.6	4.2	4.1	3.5	3.9	3.6	3.5	3.6	3.5	3.8	3.7	3.5
Gulf Coast(PADD 3)	11.8	12.9	9.9	10.9	10.1	11.2	9.8	9.2	9.8	10.2	10.4	11.2
Rocky Mountain(PADD 4)	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.5	0.5	0.7	0.6	0.6
West Coast(PADD 5)	8.7	9.4	8.7	9.7	8.6	9.6	10.6	9.4	8.1	9.4	8.3	8.7
<b>1985</b>												
Total U.S.	46.8	47.0										
East Coast(PADD 1)	23.4	21.8										
Midwest(PADD 2)	3.0	3.4										
Gulf Coast(PADD 3)	10.7	11.6										
Rocky Mountain(PADD 4)	0.5	0.5										
West Coast(PADD 5)	9.1	9.6										
<b>Week Ending:</b>												
<b>1985</b>	<b>03/01</b>	<b>03/08</b>	<b>03/15</b>	<b>03/22</b>	<b>03/29</b>	<b>04/05</b>	<b>04/12</b>	<b>04/19</b>	<b>04/26</b>	<b>05/03</b>		
Total U.S.	46.2	46.3	45.4	46.6	45.7	45.4	45.4	46.4	47.9	44.7		
East Coast(PADD 1)	20.6	21.0	21.6	22.2	22.4	21.6	21.4	21.5	23.0	19.7		
Midwest(PADD 2)	3.7	3.7	3.8	3.9	3.9	3.7	3.8	3.9	3.8	3.8		
Gulf Coast(PADD 3)	11.7	10.6	10.2	10.4	10.4	10.4	10.1	10.8	10.9	10.6		
Rocky Mountain(PADD 4)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
West Coast(PADD 5)	9.7	10.5	9.3	9.6	8.5	9.2	9.5	9.8	9.8	10.1		

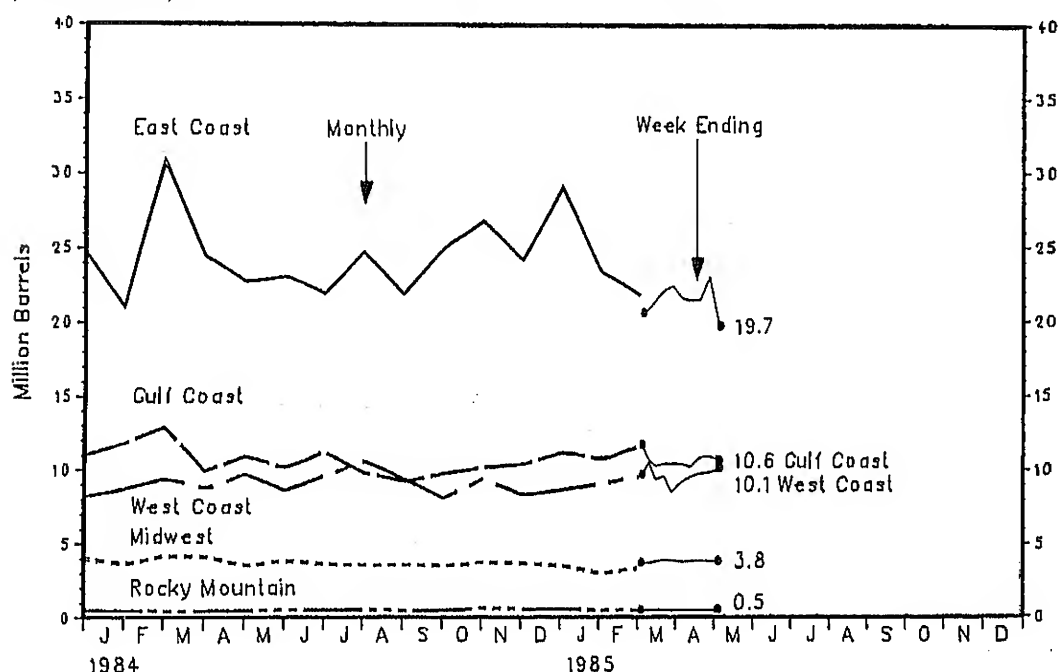
Note: PAD District data may not add to total due to rounding.  
Source: See Sources Section of this publication.

## Stocks

Residual Fuel Oil, U.S. Total  
(Million Barrels)



Residual Fuel Oil by Petroleum Administration for Defense District  
(Million Barrels)



1 Average level, width of average range, and observed minimum are based on three years of monthly data: January 1982–December 1984. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.

2 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for residual fuel oil to be 40 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

IMPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS  
(Million Barrels per Day)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Crude Oil (Excl. SPR)	2.7	2.1	2.1	2.9	3.1	3.4	3.6	3.9	3.9	3.2	3.2	3.0
SPR	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2
Refined Products	1.5	1.5	1.4	1.6	1.7	1.7	1.9	1.9	1.9	1.8	1.9	1.8
Gross Imports <sup>1</sup> (Incl. SPR)	4.4	3.7	3.7	4.7	5.1	5.3	5.7	6.2	6.1	5.3	5.2	5.0
Total Exports	1.0	0.9	0.8	0.8	0.8	0.8	0.6	0.7	0.7	0.6	0.7	0.6
Net Imports (Incl. SPR)	3.5	2.9	2.9	3.9	4.2	4.6	5.2	5.5	5.4	4.7	4.5	4.4
1984												
Crude Oil (Excl. SPR)	2.8	2.9	3.3	3.2	3.7	3.1	3.3	3.1	3.2	3.6	3.3	2.9
SPR	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.2	0.2
Refined Products	2.3	2.7	1.8	1.9	2.0	1.9	1.7	1.8	1.9	2.0	2.0	1.8
Gross Imports <sup>1</sup> (Incl. SPR)	5.3	5.6	5.3	5.3	5.9	5.3	5.4	5.0	5.2	5.8	5.5	4.9
Total Exports	0.6	0.6	0.8	0.7	0.8	0.9	0.5	0.7	0.7	0.6	0.9	1.0
Net Imports (Incl. SPR)	4.8	5.1	4.4	4.7	5.2	4.4	4.9	4.3	4.5	5.2	4.7	3.9
1985												
Crude Oil (Excl. SPR)	2.5	2.0										
SPR	0.2	0.1										
Refined Products	1.7	1.8										
Gross Imports <sup>1</sup> (Incl. SPR)	4.4	3.9										
Total Exports	0.8	0.9										
Net Imports (Incl. SPR)	3.6	3.1										
Average for Four-Week Period Ending:												
1985	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03		
Crude Oil (Excl. SPR)	2.3	2.3	2.5	2.7	3.1	3.1	3.2	3.1	3.3	3.6		
SPR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1		
Refined Products	1.5	1.6	1.7	1.6	1.6	1.5	1.5	1.3	1.3	1.4		
Gross Imports <sup>1</sup> (Incl. SPR)	3.9	4.0	4.3	4.4	4.7	4.7	4.7	4.5	4.7	5.2		
Total Exports	E0.9	E1.0	E1.0	E0.9	E0.9	E0.8	E0.8	E0.8	E0.8	E0.8		
Net Imports (Incl. SPR)	3.0	3.1	3.3	3.5	3.9	3.8	3.9	3.7	3.9	4.3		

IMPORTS OF PETROLEUM PRODUCTS BY PRODUCT  
(Thousand Barrels per Day)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Finished Motor Gasoline	153	128	186	255	305	277	302	250	279	330	269	224
Jet Fuel	27	8	35	15	29	26	30	40	44	49	23	24
Distillate Fuel Oil	68	59	42	73	147	179	267	301	259	260	203	221
Residual Fuel Oil	691	647	686	753	738	677	684	739	706	638	780	649
Other Petroleum Products <sup>2</sup>	535	617	450	512	511	591	586	602	631	535	599	703
1984												
Finished Motor Gasoline	233	303	343	308	329	272	247	243	333	293	286	308
Jet Fuel	60	112	45	95	55	44	34	95	30	49	35	29
Distillate Fuel Oil	270	458	115	220	252	266	198	263	285	424	308	190
Residual Fuel Oil	1,061	1,107	633	637	554	676	596	572	596	461	588	627
Other Petroleum Products <sup>2</sup>	695	711	662	642	799	635	665	620	636	789	766	629
1985												
Finished Motor Gasoline	204	347										
Jet Fuel	64	40										
Distillate Fuel Oil	271	148										
Residual Fuel Oil	594	614										
Other Petroleum Products <sup>2</sup>	544	645										
Average for Four-Week Period Ending:												
1985	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03		
Finished Motor Gasoline	318	380	436	392	387	352	319	308	276	332		
Jet Fuel	15	15	27	36	38	41	29	12	23	23		
Distillate Fuel Oil	186	181	167	163	126	139	205	223	263	277		
Residual Fuel Oil	521	555	557	540	533	426	353	277	254	290		
Other Petroleum Products <sup>2</sup>	508	459	492	494	524	547	577	516	511	486		

E=Estimate based on most recent monthly data available.

<sup>1</sup> Includes exports of crude oil and refined petroleum products. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

<sup>2</sup> Includes imports of kerosene, unfinished oils, motor gasoline blending components, liquefied petroleum gases and other oils.

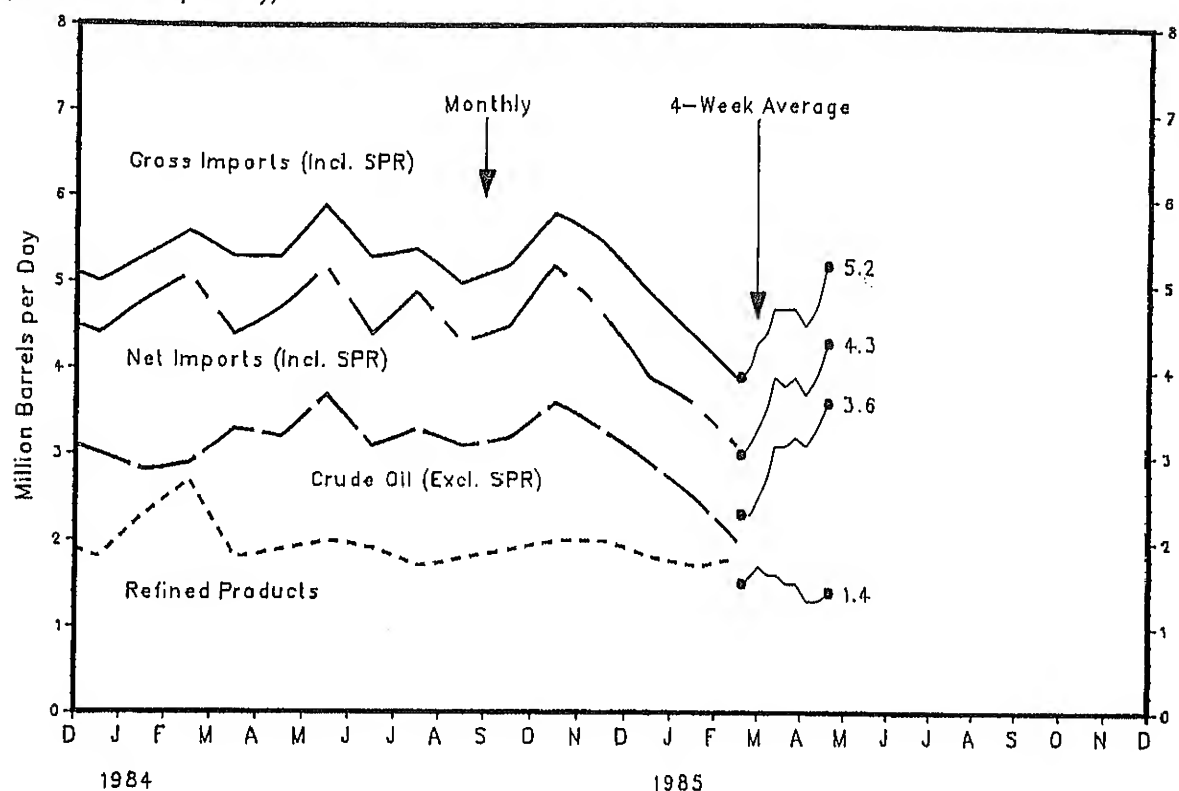
Note: Detail data may not add to total due to independent rounding.

Source: See Sources Section of this publication.

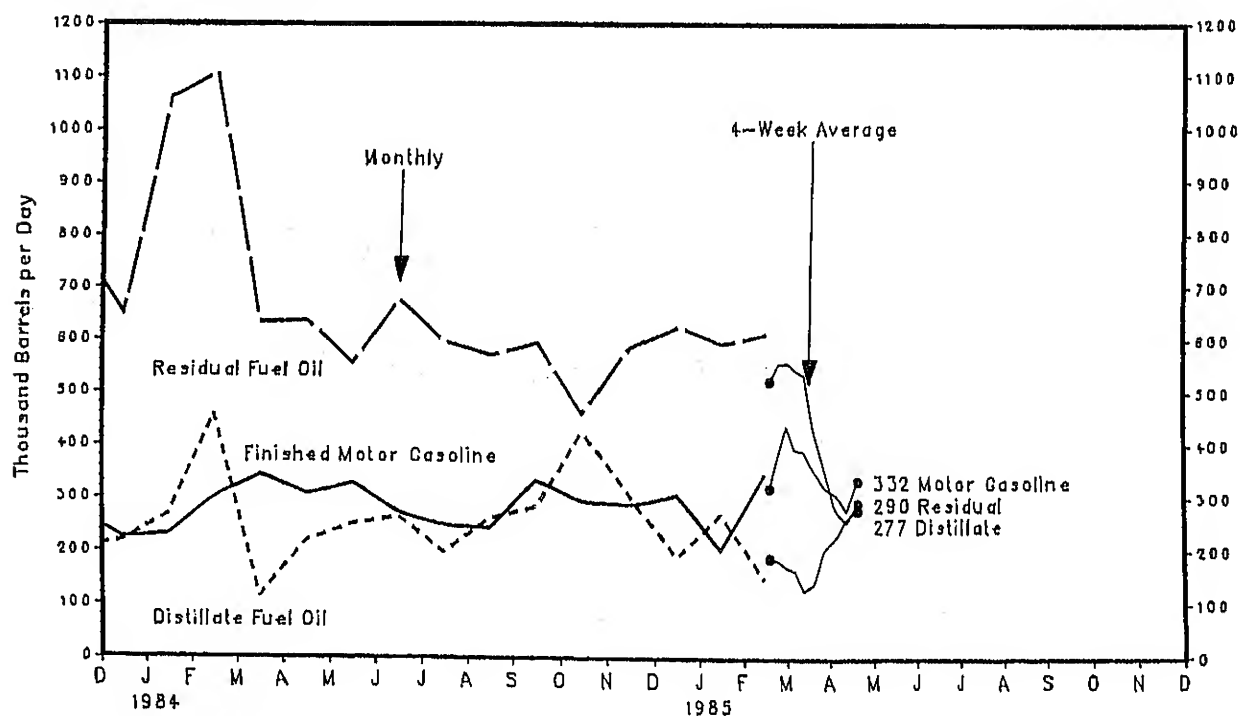


# Imports

Crude Oil and Petroleum Products  
(Million Barrels per Day)

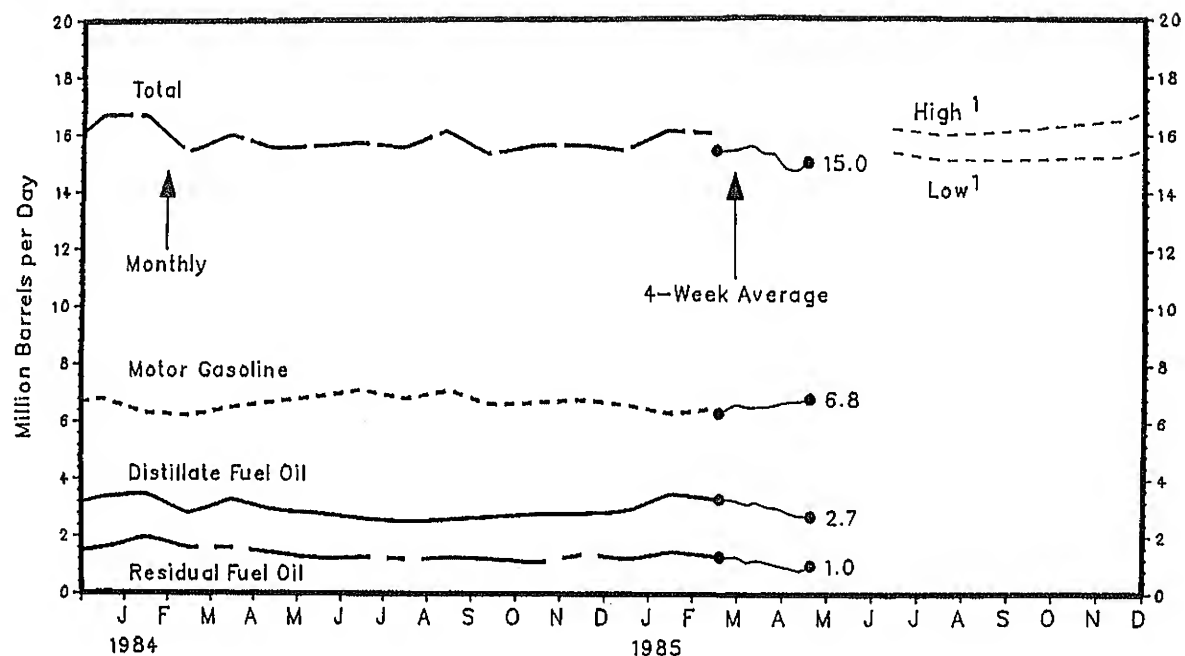


Petroleum Products by Product  
(Thousand Barrels per Day)



Source: See Sources Section of this publication.

PETROLEUM PRODUCTS SUPPLIED  
(Million Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Motor Gasoline	6.1	6.0	6.8	6.5	6.6	7.0	6.8	6.9	6.7	6.6	6.6	6.8
Jet Fuel	1.0	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0	1.2
Distillate Fuel Oil	2.8	2.8	2.9	2.7	2.4	2.5	2.3	2.5	2.6	2.6	2.9	3.4
Residual Fuel Oil	1.6	1.6	1.6	1.4	1.3	1.3	1.3	1.4	1.4	1.2	1.4	1.6
Other	3.3	3.4	3.2	3.1	3.2	3.4	3.6	3.6	3.8	3.5	3.7	3.7
Total	14.7	14.8	15.5	14.7	14.5	15.3	15.0	15.5	15.5	15.0	15.5	16.7
1984												
Motor Gasoline	6.3	6.2	6.5	6.7	6.9	7.1	6.8	7.1	6.6	6.7	6.8	6.6
Jet Fuel	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2
Distillate Fuel Oil	3.5	2.8	3.3	2.9	2.8	2.6	2.5	2.6	2.7	2.8	2.8	2.9
Residual Fuel Oil	2.0	1.6	1.6	1.4	1.2	1.3	1.2	1.3	1.2	1.1	1.4	1.2
Other	3.8	3.6	3.5	3.4	3.5	3.6	3.8	3.9	3.7	3.8	3.5	3.5
Total	16.7	15.4	16.0	15.5	15.6	15.7	15.5	16.1	15.3	15.6	15.6	15.4
1985												
Motor Gasoline	6.3	6.5										
Jet Fuel	1.2	1.1										
Distillate Fuel Oil	3.5	3.3										
Residual Fuel Oil	1.5	1.3										
Other	3.7	3.7										
Total	16.1	16.0										

Average for Four-Week Period Ending:

1985	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03
Motor Gasoline	6.3	6.5	6.6	6.5	6.5	6.5	6.6	6.7	6.7	6.8
Jet Fuel	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Distillate Fuel Oil	3.3	3.3	3.2	3.1	3.2	3.0	3.0	2.8	2.7	2.7
Residual Fuel Oil	1.3	1.3	1.3	1.1	1.2	1.1	1.0	0.9	0.6	1.0
Other	3.4	3.2	3.3	3.6	3.6	3.5	3.5	3.2	3.2	3.3
Total	15.4	15.4	15.4	15.5	15.6	15.3	15.3	14.8	14.7	15.0

1 Projected. See Appendix C for explanation of derivation of values.  
Note: Detail data may not add to total due to independent rounding.  
Source: See Sources Section of this publication.

REFINER ACQUISITION COST OF CRUDE OIL  
(Dollars per Barrel)

Year/Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Domestic	30.55	29.16	28.69	28.45	28.68	28.67	28.74	28.58	28.69	28.88	28.76	28.62
Imported	31.40	30.76	28.43	27.95	28.53	29.23	28.76	29.50	29.54	29.67	29.09	29.30
Composite	30.73	29.49	28.64	28.33	28.64	28.85	28.75	28.88	28.97	29.14	28.85	28.83
1984												
Domestic	28.62	28.76	28.75	28.63	28.65	28.58	28.70	28.59	28.56	28.46	28.10	27.95
Imported	28.80	28.91	28.95	29.11	29.26	29.19	29.00	28.92	28.70	28.79	28.74	28.02
Composite	28.67	28.81	28.81	28.77	28.83	28.77	28.79	28.69	28.60	28.56	28.30	27.97
1985												
Domestic	26.89	26.39										
Imported	27.51	27.05										
Composite	27.02	26.53										

AVERAGE RETAIL SELLING PRICES  
MOTOR GASOLINE AND RESIDENTIAL HEATING OIL  
(Cents per Gallon, Including Taxes)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983												
Motor Gasoline												
Leaded Regular	114.6	109.9	106.4	113.1	117.7	119.7	120.7	120.3	118.9	117.2	115.6	114.6
Unleaded Premium	137.6	133.8	130.8	136.0	139.7	141.1	142.1	141.9	141.0	139.5	138.4	137.6
Unleaded Regular	122.8	118.7	115.1	121.5	125.9	127.7	128.8	128.5	127.4	125.5	124.1	123.1
All-Types	121.3	117.0	113.5	119.8	124.3	126.1	127.2	126.9	125.7	123.9	122.4	121.5
Residential Heating Oil <sup>1</sup>	115.0	111.6	105.1	103.5	104.8	106.0	105.0	104.9	105.7	106.0	106.0	106.7
1984												
Motor Gasoline												
Leaded Regular	113.1	112.5	112.5	114.5	115.4	114.7	112.9	111.6	112.0	112.7	112.4	110.9
Unleaded Premium	136.9	136.1	136.2	137.5	138.0	137.7	137.0	135.5	136.0	136.5	136.4	135.4
Unleaded Regular	121.6	120.9	121.0	122.7	123.6	122.9	121.2	119.6	120.3	120.9	120.7	119.3
All-Types	120.0	119.3	119.4	121.1	122.1	121.4	119.7	118.4	118.9	119.5	119.3	117.9
Residential Heating Oil <sup>1</sup>	112.0	116.9	111.3	109.8	108.4	107.2	104.8	103.3	103.6	104.9	105.3	104.8
1985												
Motor Gasoline												
Leaded Regular	106.0	104.1	107.1									
Unleaded Premium	130.4	129.0	131.0									
Unleaded Regular	114.8	113.1	115.9									
All-Types	114.5	112.8	115.5									
Residential Heating Oil <sup>1</sup>	R104.9	P105.3										

R=EIA Revision

P=Preliminary

<sup>1</sup> Residential heating oil prices do not include taxes.

Source: See Sources Section of this publication.

**WORLD CRUDE OIL PRICES<sup>1</sup>**  
(Dollars per Barrel)

Country	Type of Crude/ API Gravity	Current Price	In Effect 1 Jan 85	In Effect 1 Jan 84	In Effect 1 Jan 83	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jan 80	In Effect 31 Dec 78
<b>OPEC</b>									
Saudi Arabia	Arabian Light 34°	28.00	29.00	29.00	34.00	34.00	32.00	26.00	12.70
Saudi Arabia	Arabian Medium 31°	27.40	27.65	27.40	32.40	32.40	31.45	23.54	12.32
Saudi Arabia	Arabian Heavy 27°	26.50	26.50	26.00	31.00	31.00	31.00	25.00	12.02
Abu Dhabi	Murban 39°	28.15	29.31	29.56	34.56	35.50	36.56	29.56	13.26
Dubai	Fateh 32°	28.86	28.86	28.86	33.86	33.86	35.93	27.93	12.64
Qatar	Dukhan 40°	28.10	29.24	29.49	34.49	35.45	37.42	29.42	13.19
Iran	Iranian Light 34°	28.05	28.00	28.00	31.20	34.20	37.00	30.00	13.45
Iran	Iranian Heavy 31°	27.35	27.10	27.10	29.30	32.30	34.00	27.77	12.49
Iraq	Kirkuk Blend 36°	28.18	29.83	29.83	34.83	34.93	37.50	29.29	13.17
Kuwait	Kuwait Blend 31°	27.30	27.55	27.30	32.30	32.30	35.50	27.50	12.22
Neutral Zone	Khafji 28°	26.53	26.53	26.03	31.03	31.03	25.20	27.20	12.03
Algeria	Saharan Blend 44°	29.50	30.50	30.50	35.50	37.00	40.00	33.00	14.10
Nigeria	Bonny Light 37°	28.65	28.00	30.00	35.50	36.50	40.00	29.97	15.12
Nigeria	Forcados 31°	28.05	27.50	29.00	34.50	36.00	39.80	29.80	13.70
Libya	Es Sider 37°	30.15	30.15	30.15	35.10	36.50	40.78	34.50	13.68
Indonesia	Minas 34°	28.53	29.53	29.53	34.53	35.00	35.00	27.50	13.55
Venezuela	Oficina 34°	28.80	31.09	31.09	37.06	37.06	38.06	28.75	13.99
Venezuela	Tia Juana 26°	27.60	27.88	27.88	32.88	32.88	32.88	25.20	12.72
Venezuela	Bachaquero 17°	25.50	25.50	25.00	25.29	27.79	27.95	22.10	11.38
Gabon	Mandji 30°	27.50	29.00	29.00	34.00	34.00	35.00	28.00	12.59
Ecuador	Oriente 30°	26.50	27.50	27.50	32.50	34.25	40.06	33.50	12.35
Total OPEC <sup>3</sup>	NA	27.99	28.43	28.59	33.54	34.13	34.82	28.30	13.03
<b>Non-OPEC</b>									
United Kingdom	Brent Blend 38°	27.90 <sup>4</sup>	28.65	30.00	33.50	36.60	39.25	26.02	NA
Norway	Ekofisk 42°	27.50 <sup>4</sup>	28.50	30.25	34.25	37.25	40.00	32.50	14.20
Mexico	Isthmus 33°	27.75	29.00	29.00	32.50	35.00	38.50	32.00	13.10
Mexico	Maya 22°	25.50	25.50	25.00	25.50	26.50	34.50	28.00	NA
Egypt	Suez Blend 33°	26.75	28.00	28.00	31.00	34.00	40.50	34.00	12.81
Oman	Oman 34°	27.35	29.00	29.00	34.00	35.00	37.50	30.26	13.06
Malaysia	Miri 32°	27.95	29.85	29.85	35.60	36.50	41.30	33.60	14.30
Brunei	Seria Light 37°	28.35	29.60	30.10	35.10	36.10	40.35	33.40	14.15
U.S.S.R.	Export Blend <sup>5</sup> 32°	27.00	28.00	28.60	31.20	35.49	39.25	33.20	13.20
Total Non-OPEC <sup>3</sup>	NA	27.20	28.16	28.65	31.72	34.35	38.54	31.94	13.44
Total World <sup>3</sup>	NA	27.69	28.33	28.61	33.00	34.18	35.49	28.84	13.08
United States <sup>6</sup>	NA	27.22	27.95	28.44	32.51	34.15	36.69	29.35	13.38

NA=Not Applicable.

<sup>1</sup> Official sales prices or estimated long term contract prices; spot or discount prices excluded. See Appendix D for calculation of world oil prices.

<sup>2</sup> Also called Sumatra Light.

<sup>3</sup> Average prices (FOB) weighted by estimated export volume.

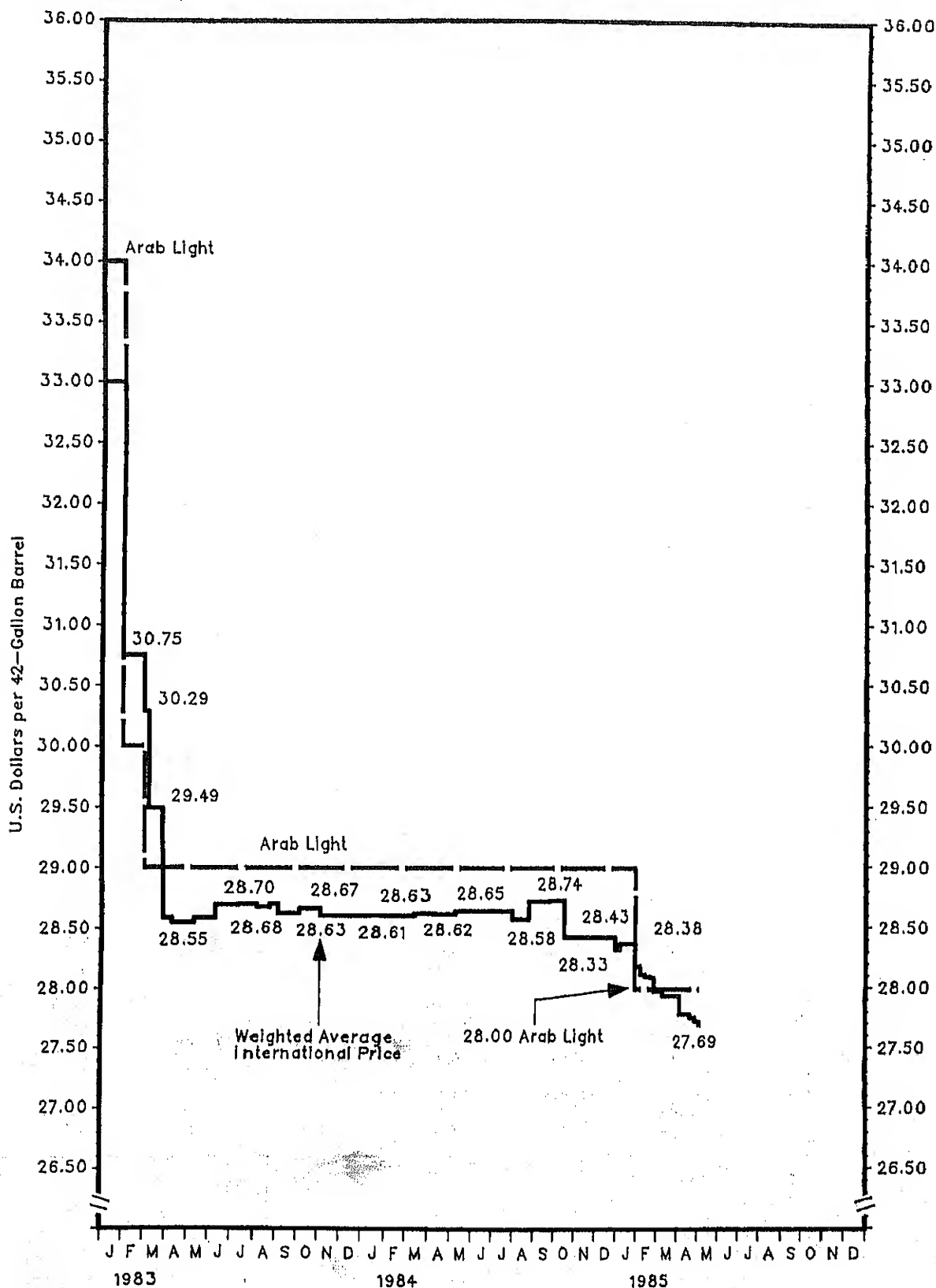
<sup>4</sup> Current contract price based on spot market prices for crude oil.

<sup>5</sup> Average delivered cost to Northwest Europe, also called Urals.

<sup>6</sup> Average prices (FOB) weighted by estimated import volume.

Source: See Sources Section of this publication.

World Crude Oil Prices<sup>1</sup>  
(Dollars per Barrel)



<sup>1</sup> Internationally traded oil only. Average price (FOB) weighted by estimated export volume.  
Source: See Sources Section of this publication.

SPOT MARKET PRODUCT PRICES<sup>1</sup>  
(Dollars per Barrel)

		Motor Gasoline		Gasoil/Heating Oil <sup>1</sup>		Residual Fuel Oil <sup>2</sup>	
		Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur)
1984	Mar 30	32.77	35.87	34.12	34.76	28.00	28.75
	Apr 6	33.06	35.26	34.12	35.91	28.60	29.25
	13	33.06	35.15	33.31	36.02	28.15	29.40
	20	32.53	34.08	32.91	36.12	27.85	29.40
	27	32.36	33.73	32.84	36.02	27.85	29.40
	May 4	31.65	33.96	32.17	35.80	27.85	29.25
	11	31.59	33.75	31.97	36.12	28.00	29.25
	18	32.59	33.85	33.18	35.70	28.53	29.40
	25	33.18	33.52	33.18	34.12	28.45	29.85
	Jun 1	33.35	33.10	33.71	34.23	28.45	30.00
	8	33.00	32.68	33.04	33.81	27.78	29.90
	15	32.12	32.05	31.70	32.34	27.85	29.75
	22	31.18	31.10	31.23	32.13	27.40	29.25
	29	30.13	32.05	30.70	32.30	27.03	28.75
	Jul 6	Not available.					
	13	31.36	32.03	30.76	32.28	27.18	29.00
	20	30.66	31.29	30.16	31.92	27.18	28.75
	27	29.95	30.98	29.09	30.66	27.18	28.50
	Aug 3	29.31	32.24	29.76	31.71	27.18	27.75
	10	30.54	32.09	30.50	31.71	27.18	27.50
	17	31.24	32.02	30.83	32.02	27.18	27.75
	24	31.13	32.13	32.10	32.97	27.18	28.00
	31	31.13	32.34	31.97	32.55	27.25	28.65
	Sep 7	31.01	32.76	31.17	33.08	27.18	28.75
	14	30.95	32.82	31.84	33.39	27.48	28.75
	21	30.95	33.18	32.37	33.81	28.00	28.75
	28	30.95	33.01	32.84	34.23	28.00	28.70
	Oct 5	30.77	32.91	33.11	34.02	28.30	28.75
	12	30.89	33.54	32.31	33.08	28.60	28.75
	19	29.95	30.68	29.83	30.24	28.38	28.75
	26	29.60	30.68	31.70	32.34	27.78	28.25
	Nov 2	29.60	31.46	31.37	32.34	27.78	28.25
	9	29.43	30.64	32.44	32.55	27.78	28.25
	16	29.43	30.03	32.10	32.02	28.60	28.70
	23	29.37	29.65	32.31	32.13	28.68	28.90
	30	28.78	28.92	29.96	31.50	27.93	28.80
	Dec 7	28.84	29.25	30.43	32.13	27.93	28.80
	14	28.19	28.37	29.96	31.18	27.93	29.00
	21	27.73	28.10	29.76	30.34	28.23	29.00
	28	Not available.					
1985	Jan 4	27.72	28.27	29.35	29.76	28.22	28.25
	11	27.43	28.58	31.09	30.87	28.30	28.25
	18	27.02	28.50	32.23	32.76	28.67	29.25
	25	26.84	29.23	31.76	31.19	28.75	29.45
	Feb 1	26.96	30.43	32.30	31.19	28.15	29.25
	8	27.43	31.29	32.30	31.71	28.75	29.50
	15	28.42	31.29	34.04	31.92	29.20	29.50
	22	29.01	31.84	34.04	32.24	28.97	29.50
	Mar 1	28.78	31.50	31.43	32.34	27.62	29.50
	8	28.83	31.61	32.37	32.76	26.42	28.65
	15	29.42	31.61	32.10	33.12	26.42	27.35
	22	30.48	33.60	32.10	35.81	24.62	27.00
	29	30.59	33.71	32.50	35.39	25.30	26.75
	Apr 5	31.94	34.65	32.10	34.13	25.37	26.65
	12	33.35	34.65	31.56	32.97	25.30	26.25
	19	33.24	34.23	30.83	32.66	25.08	26.00
	26	33.00	34.34	31.03	32.66	23.94	25.75
	May 3	33.35	34.02	29.69	31.61	23.50	25.00

1 Refers to No. 2 Heating Oil.

2 Refers to No. 6 Oil.

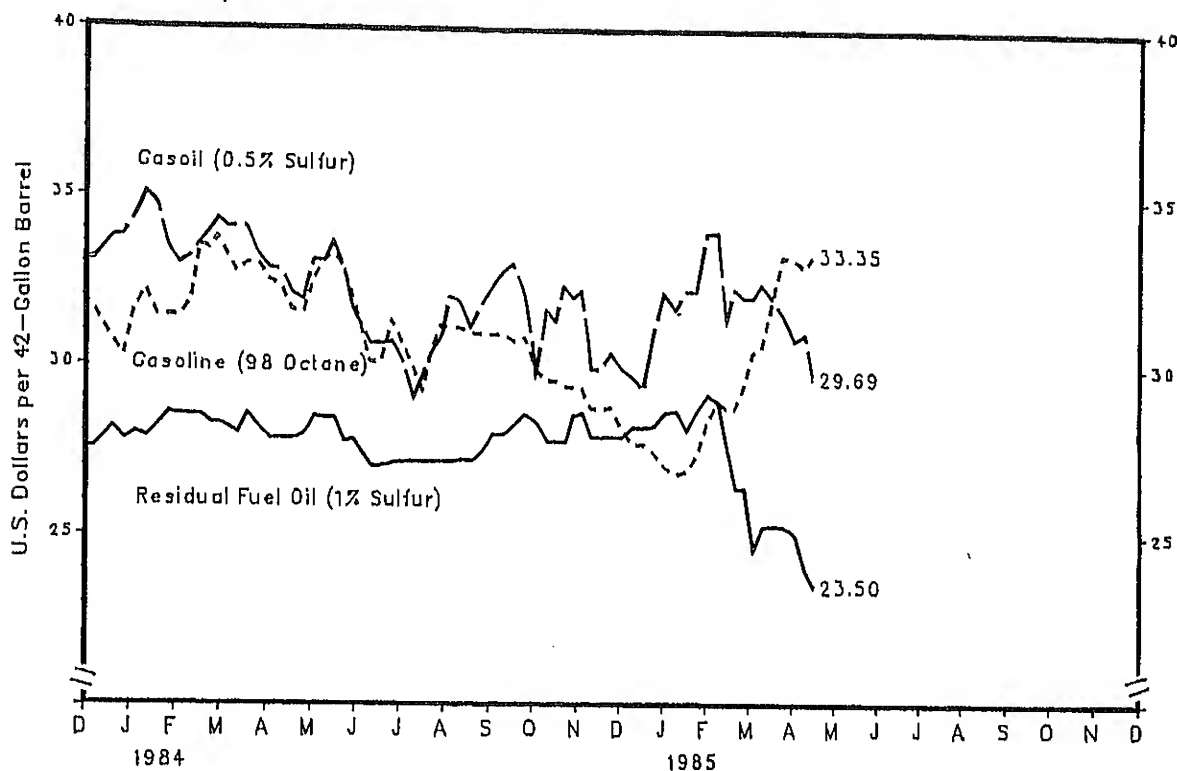
3 East Coast Cargoes.

4 New York Harbor Reseller Barge Prices.

Source: See Sources Section of this publication.

## Spot Market Product Prices

Rotterdam Market  
(Dollars per Barrel)



WEATHER SUMMARY  
(Population Weighted Heating Degree Days<sup>1</sup>)

Weather data reported in the Weekly Petroleum Status Report are now taken directly from a computerized system implemented by the National Oceanic and Atmospheric Administration, Department of Commerce.

The weather for the nation, as measured by population-weighted heating degree-days from July 1, 1984 through May 4, 1985, has been 3 percent warmer than normal and 7 percent warmer than last year.

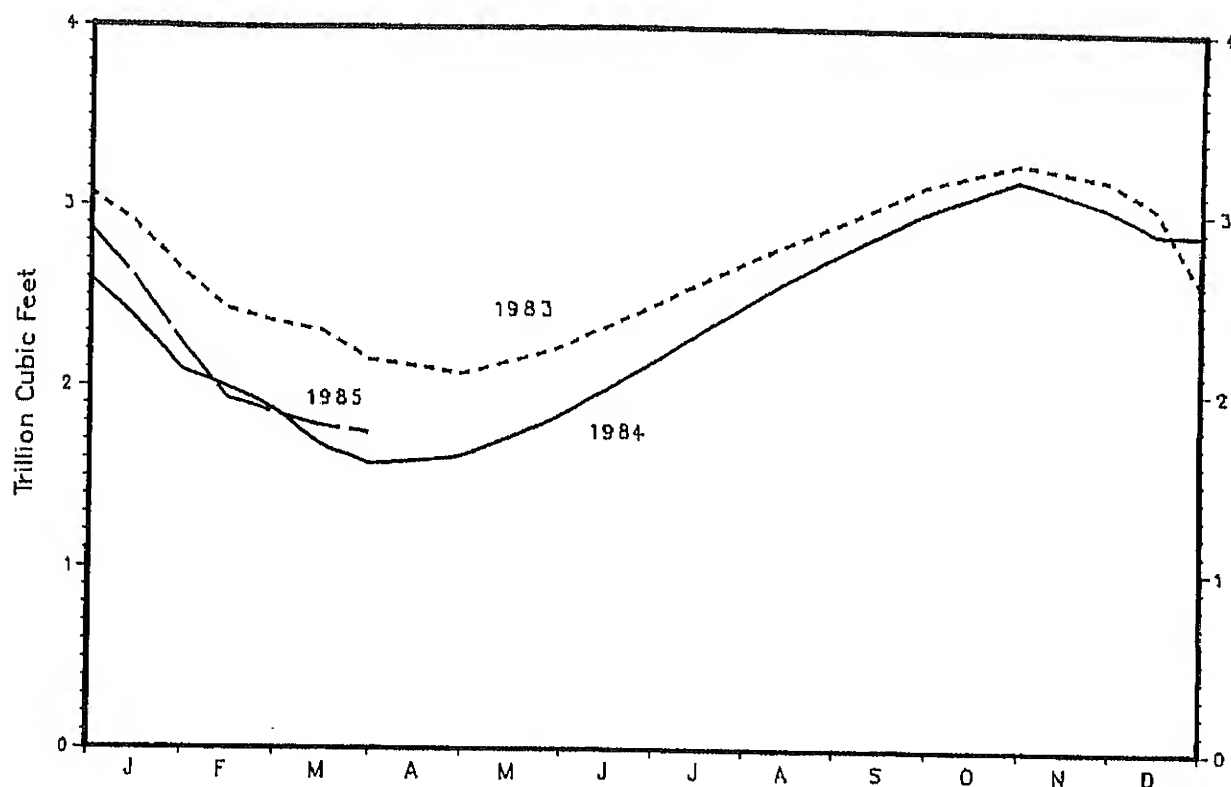
U.S. TOTAL HEATING DEGREE DAYS (Population Weighted) and by CITY

	1984-1985 This year	1983-1984 Last year	Normal	Percent Change	
				This year vs. Last year	This year vs. Normal
July 1 - June 30		4,903	4,689	--	--
July 1 - May 4	4,391	4,711	4,527	-7	-3
Cities					
Albuquerque	4,441	4,250	4,353	4	2
Amarillo	4,121	4,737	4,156	-13	-1
Asheville	4,048	4,438	4,180	-9	-3
Atlanta	2,675	3,254	2,988	-18	-10
Billings	7,148	6,476	6,842	10	4
Boise	6,634	6,133	5,513	8	20
Boston	5,350	5,569	5,394	-4	-1
Buffalo	6,234	6,632	6,514	-6	-4
Cheyenne	7,277	7,463	6,844	-2	6
Chicago	6,434	6,893	6,234	-7	3
Cincinnati	4,769	5,689	5,121	-16	-7
Cleveland	5,761	6,401	5,958	-10	-3
Columbia, SC	2,495	2,916	2,611	-14	-4
Denver	5,922	6,365	5,736	-7	3
Des Moines	6,219	6,734	6,413	-8	-3
Detroit	6,090	6,674	6,338	-9	-4
Fargo	8,570	8,749	9,008	-2	-5
Hartford	5,694	6,128	5,997	-7	-5
Houston	1,503	1,847	1,550	-19	-3
Jacksonville	1,314	1,557	1,407	-16	-7
Kansas City	5,284	5,883	5,179	-10	2
Las Vegas	2,568	2,097	2,518	22	2
Los Angeles	1,497	988	1,462	52	2
Memphis	2,922	3,387	3,188	-14	-8
Miami	234	186	198	26	18
Milwaukee	6,574	6,942	6,972	-5	-6
Minneapolis	7,452	8,023	7,772	-7	-4
Montgomery	1,913	2,393	2,271	-20	-16
New York	4,354	4,984	4,795	-13	-9
Oklahoma City	3,694	4,144	3,705	-11	0
Omaha	5,973	6,895	6,077	-13	-2
Philadelphia	4,544	5,198	4,848	-13	-6
Phoenix	1,127	791	1,442	42	-22
Pittsburgh	5,381	6,028	5,758	-11	-7
Portland, ME	6,761	6,850	7,082	-1	-5
Providence	5,328	5,487	5,684	-3	-6
Raleigh	3,286	3,742	3,490	-12	-6
Richmond	3,611	4,243	3,911	-15	-8
St. Louis	4,591	5,160	4,838	-11	-5
Salem, OR	4,805	4,072	4,558	18	5
Salt Lake City	5,689	5,651	5,571	1	2
San Francisco	2,627	1,979	2,831	33	-7
Seattle	4,914	4,357	4,690	13	5
Shreveport	2,039	2,739	2,264	-26	-10
Washington, DC	3,816	4,184	4,071	-9	-6

<sup>1</sup> See Glossary.



NATURAL GAS IN UNDERGROUND STORAGE  
(Trillion Cubic Feet)



Working Gas<sup>1</sup>

	1983	1984	1985
January 15	2.902	2.381	2.602
January 31	2.644	2.090	2.242
February 15	2.433	1.997	1.937
February 28	2.356	1.876	1.853
March 15	2.305	1.671	1.781
March 31	2.148	1.572	P1.745
April 30	2.074	1.620	
May 31	2.222	1.843	
June 30	2.454	2.141	
July 31	2.696	2.456	
August 31	2.908	2.740	
September 30	3.140	2.996	
October 31	3.269	3.177	
November 30	3.174	3.017	
December 15	3.028	2.886	
December 31	2.595	2.877	

P=Preliminary

<sup>1</sup> Working Gas: Gas available for withdrawal.

Source: See Sources Section of this publication.

Weekly Estimates  
(Thousand Barrels per Day Except Where Noted)

Crude Oil Production	04/05/85	04/12/85	04/19/85	04/26/85	05/03/85
Domestic Production.....	E8,842.0	E8,842.0	E8,842.0	E8,842.0	E8,969.0
<b>Inputs and Utilizations</b>					
Crude Oil Input.....	11,432.0	11,780.0	11,895.0	11,852.0	11,663.0
Gross Inputs.....	11,591.0	11,867.0	11,992.0	12,068.0	11,840.0
East Coast (PADD 1).....	1,123.0	1,141.0	1,175.0	1,183.0	1,150.0
Midwest (PADD 2).....	2,493.0	2,720.0	2,629.0	2,655.0	2,594.0
Gulf Coast (PADD 3).....	5,396.0	5,388.0	5,525.0	5,619.0	5,430.0
Rocky Mountain (PADD 4).....	335.0	364.0	313.0	275.0	344.0
West Coast (PADD 5).....	2,244.0	2,254.0	2,350.0	2,336.0	2,322.0
Operable Capacity (Million Barrels per Day).....	15.4	15.4	15.4	15.6	15.6
Percent Utilization.....	75.1	76.9	77.7	77.4	76.0
<b>Production by Product</b>					
Motor Gasoline.....	6,275.0	6,226.0	6,363.0	6,458.0	6,210.0
East Coast (PADD 1).....	633.0	479.0	543.0	629.0	609.0
Midwest (PADD 2).....	1,569.0	1,625.0	1,563.0	1,553.0	1,465.0
Gulf Coast (PADD 3).....	2,827.0	2,992.0	2,997.0	3,002.0	2,770.0
Rocky Mountain (PADD 4).....	219.0	178.0	218.0	200.0	221.0
West Coast (PADD 5).....	1,027.0	952.0	1,042.0	1,074.0	1,145.0
Jet Fuel.....	1,155.0	1,252.0	1,177.0	1,163.0	1,100.0
Naphtha-Type.....	230.0	226.0	238.0	255.0	206.0
Kerosene-Type.....	925.0	1,026.0	939.0	909.0	894.0
Distillate Fuel Oil.....	2,341.0	2,453.0	2,455.0	2,480.0	2,460.0
East Coast (PADD 1).....	246.0	212.0	244.0	255.0	245.0
Midwest (PADD 2).....	544.0	596.0	532.0	578.0	637.0
Gulf Coast (PADD 3).....	1,137.0	1,190.0	1,192.0	1,204.0	1,170.0
Rocky Mountain (PADD 4).....	84.0	99.0	87.0	89.0	85.0
West Coast (PADD 5).....	330.0	356.0	400.0	354.0	323.0
Residual Fuel Oil.....	936.0	918.0	888.0	1,011.0	945.0
<b>Imports</b>					
Total Crude Oil incl SPR.....	2,777.0	3,545.0	3,143.0	3,931.0	4,443.0
Crude Oil.....	2,727.0	3,496.0	3,093.0	3,688.0	4,316.0
SPR.....	50.0	49.0	50.0	242.0	127.0
Motor Gasoline.....	320.0	193.0	344.0	246.0	543.0
Jet Fuel.....	13.0	0.0	0.0	76.0	14.0
Naphtha-Type.....	13.0	0.0	0.0	30.0	14.0
Kerosene-Type.....	0.0	0.0	0.0	46.0	0.0
Distillate.....	258.0	352.0	283.0	157.0	314.0
Residual.....	203.0	250.0	235.0	327.0	347.0
Other.....	568.0	631.0	364.0	481.0	467.0
Total Refined Products Imports.....	1,362.0	1,426.0	1,227.0	1,286.0	1,684.0
<b>Exports</b>					
Total.....	E791.0	E791.0	E791.0	E857.0	E857.0
Crude Oil.....	E144.0	E144.0	E144.0	E221.0	E221.0
Products.....	E647.0	E647.0	E647.0	E636.0	E636.0
<b>Products Supplied</b>					
Motor Gasoline.....	6,458.0	7,025.0	6,504.0	7,004.0	6,862.0
Total Jet Fuel.....	1,086.0	1,367.0	1,158.0	1,190.0	1,108.0
Naphtha Jet Fuel.....	221.0	278.0	223.0	283.0	270.0
Kerosene Jet Fuel.....	865.0	1,089.0	935.0	907.0	838.0
Distillate Fuel Oil.....	2,607.0	2,899.0	2,838.0	2,624.0	2,613.0
Residual Fuel Oil.....	864.0	860.0	661.0	837.0	1,450.0
Other Oils.....	3,066.0	3,364.0	2,986.0	3,545.0	3,141.0
Total Products Supplied.....	14,081.0	15,516.0	14,148.0	15,200.0	15,174.0

E=Estimate based on monthly data.

Note: Due to independent rounding, individual product detail may not add to total.

Source: See Sources Section of this publication.

## Appendix A

### EIA WEEKLY DATA: SURVEY DESIGN AND ESTIMATION METHODS

The Weekly Petroleum Reporting System (WPRS) comprises six surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801); the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); the "Weekly Imports Report" (EIA-804); and the "Weekly Shipments from Puerto Rico to the United States Report" (EIA-805). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804 and EIA-805, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

#### Sample Frame

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and the District of Columbia. The EIA-800 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-802 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate, and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all companies which carry or store crude oil of 1,000 barrels or more. Included are gathering and trunk pipeline companies (including interstate, intrastate and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the United States. The EIA-805 sample frame includes all shippers of petroleum products into the United States from Puerto Rico.

#### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published. The EIA-805 is a census of all shippers of petroleum products from Puerto Rico.

	Refiners (Refineries)	Bulk Terminals	Product Pipelines	Crude Oil Stock Holders	Importers	Shippers From PR
Weekly Form	EIA-800	EIA-801	EIA-802	EIA-803	EIA-804	EIA-805
Monthly Frame Size	152(256)	318	89	181	1208	3
Weekly Sample Size	60(157)	75	50	86	72	3

#### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms must file by 5:00 p.m. on the Monday following the close of the report week, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

#### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, explicit imputation is done for companies which have not yet responded. The imputed values are exponentially smoothed means of recent weekly reported values for this specific company. The imputed values are treated like reported values in the estimation procedure, which calculates ratio estimates of the weekly totals. First, the current week's data for a given product reported by companies in a geographic region are summed. (Call this weekly sum,  $W_t$ ). Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ ). Finally, let  $M_t$  be the sum of most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies,  $W_t$ , is given by:

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types. Shipments from Puerto Rico are considered imports for estimation purposes.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of total weekly imports is the product of the smoothed ratio and the sum of the weekly reported values and imputed values. Imports of other oils include an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

## Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800; 75 percent for the EIA-801; 95 percent for the EIA-802; 80 percent for the EIA-803; greater than 95 percent for the EIA-804 and 100 percent for the EIA-805. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Appendix B

### INTERPRETATION AND DERIVATION OF AVERAGE INVENTORY LEVELS

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgements of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

#### Average Inventory Levels

The charts displaying inventory levels of crude oil and petroleum products (p.7), crude oil (p.7), motor gasoline (p.9), distillate fuel oil (p.11), and residual fuel oil (p.13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1977-1983. In 1977, monthly stock levels of motor gasoline stayed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, data for 1978-1983 were used in the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

Values of Average Ranges in Inventory Graphs  
(Millions of Barrels)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lower Range												
Total Petroleum	1090.5	1058.4	1032.3	1033.4	1043.1	1055.9	1082.4	1098.4	1114.7	1123.4	1132.0	1108.7
Crude Oil	342.8	344.5	347.2	350.1	344.8	344.2	343.0	338.9	334.4	342.8	343.8	335.6
Motor Gasoline	244.1	246.5	241.4	226.7	218.9	216.2	216.8	213.9	217.1	212.0	218.6	227.8
Distillate Fuel Oil	128.1	101.6	84.2	79.6	88.2	101.3	122.2	140.1	154.7	160.3	164.1	152.2
Residual Fuel Oil	48.9	40.2	38.3	39.0	44.4	42.8	44.4	45.0	50.0	52.6	56.1	55.0
Upper Range												
Total Petroleum	1142.9	1110.8	1084.7	1085.8	1095.5	1108.4	1134.8	1150.8	1167.2	1175.8	1184.4	1161.1
Crude Oil	356.2	357.9	360.6	363.5	358.2	357.6	356.4	352.3	347.8	356.2	357.2	349.0
Motor Gasoline	262.5	264.9	259.8	245.1	237.3	234.6	235.2	232.3	235.5	230.4	237.0	246.2
Distillate Fuel Oil	158.8	132.3	114.9	110.3	118.9	132.0	152.9	170.7	185.4	191.0	194.8	182.8
Residual Fuel Oil	62.9	54.2	52.3	53.0	58.4	56.9	58.4	59.0	64.0	66.6	70.2	69.0

#### Minimum Operating Inventories

The lines labeled "Minimum Operating Inventory" (MOI) on the stocks graphs for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil represent estimates of those inventory levels made by the National Petroleum Council (NPC) and published in November 1983 in "Petroleum Inventories and Storage Capacity -- An Interim Report." The NPC defines the MOI as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. The NPC report presents the findings of a study which was directed by the NPC's Committee on Petroleum Inventories and Storage Capacity. MOI estimates presented in

the report were developed by consensus through a decision-making process that relied on the judgement of Committee members based on their operating experience, on historical inventory trends, and on the results of an NPC survey of companies that provide primary inventory data to the Energy Information Administration. The estimated values are: Crude oil -- 285 million barrels; motor gasoline -- 200 million barrels; distillate fuel oil -- 105 million barrels; and residual fuel oil -- 40 million barrels.

The NPC did not develop a minimum operating inventory level for total petroleum stocks. The line labeled "observed minimum" on the "Stocks of Crude Oil and Petroleum Products, U.S. Total" graph is the lowest inventory level observed during the same 3-year base period that was used in the derivation of the average inventory levels shown on the graph.

#### Appendix C

##### PROJECTION FROM THE SHORT-TERM ENERGY OUTLOOK, JANUARY 1985

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook (Outlook), January 1985. The three forecast cases presented in the Outlook for 1985 through mid-1986 are based on different assumptions about the growth of the U.S. economy and the associated price of imported crude oil to U.S. refiners.

In the high economic growth case:

- ° One year growth in the real Gross National Product (GNP) is projected to be 3.5 percent for 1985 and 4.1 percent for the first six months of 1986.
- ° U.S. refinery acquisition costs of imported crude oil are assumed to fall to an average of \$25.50 per barrel in 1985 and \$25.00 per barrel in 1986, in current dollars.

In the base case:

- ° One year growth in the GNP is projected to be 2.5 percent for 1985 and 2.9 percent for the first six months of 1986.
- ° U.S. refinery acquisition costs of imported crude oil are assumed to fall to an average of \$28.10 per barrel in 1985 and \$28.00 per barrel in 1986, in current dollars.

In the low economic growth case:

- ° One year GNP growth falls to 1.0 percent in 1985, then rises to 2.6 percent the first six months of 1986.
- ° U.S. refinery acquisition costs of imported crude oil are assumed to rise to an average of \$29.60 per barrel in 1985 and \$30.50 in the first six months of 1986, in current dollars.

The plots of the low and high product supplied estimates incorporate an additional sensitivity adjustment for changes in weather, and residential sector switching from oil, as estimated in the Short-Term Energy Outlook, Table 13.

For more detailed information on the above (and other components of the forecast), please refer to the published report, Short-Term Energy Outlook, January 1985.

Copies of the report are available from:

National Energy Information Center  
Room 1F-048, Forrestal Building  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
Telephone 202-252-8800

## Appendix D

### CALCULATION OF WORLD OIL PRICES

The weighted average international price of oil, shown in the "Highlights" on page 1 and on page 18, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 18, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide", "Platt's Oilgram Price Report", "Petroleum Intelligence Weekly", and "Europe Oil Prices") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices.

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate.

## GLOSSARY

- o **Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.
- o **Cooling Degree-Days.** The number of degrees per day the daily average temperature is above 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.
- o **Crude Oil.** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.
- o **Crude Oil Input.** The total crude oil put into processing units at refineries.
- o **Degree-Day Normals.** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951-1980). These may be simple degree-day normals or population-weighted degree-day normals.
- o **Distillate Fuel Oils.** Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1, No. 2, and No. 4 diesel fuels. These are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.
- o **Gross Inputs.** The crude oil, unfinished oils, and natural gas plant liquids put into distillation units.
- o **Heating Degree-Days.** The number of degrees per day the daily average temperature is below 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.
- o **Imports.** Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils") include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, gasoline blending components, and other miscellaneous oils.
- o **Jet Fuel.** Includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.
- o **Motor Gasoline.** Finished leaded gasoline, finished unleaded gasoline, and blending components in the gasoline range. Production and imports data represent finished leaded gasoline and finished unleaded gasoline. Stocks data consist of the two types of finished gasoline and blending components. Stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks. Imports of motor gasoline blending components are contained in other oils imports.
- o **Operable Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.
- o **Petroleum Administration for Defense Districts (PADD).** Five geographical areas into which the nation was divided by the Petroleum Administration for Defense for purposes of administration. These PADDs include the states listed below:
  - PADD 1: Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia.
  - PADD 2: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.
  - PADD 3: Alabama, Arkansas, Louisiana, Mississippi, New Mexico and Texas.
  - PADD 4: Colorado, Idaho, Montana, Utah, and Wyoming.
  - PADD 5: Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington.
- o **Population-Weighted Degree-Days.** Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree days, each State is divided into from one to nine climatically homogeneous divisions which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and these products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions comprised of from three to eight States which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and these products are then summed to arrive at the national population weighted degree-day figure.

**Product Supplied.** A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Oils" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.

**Refiner Acquisition Cost of Crude Oil.** The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil. Prices do not include the price of crude oil for the SPR.

**Refinery Capacity Utilization.** Ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1982 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the types of products produced, and the operating conditions of the refinery.

**Residual Fuel Oils.** Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.

**Retail Motor Gasoline Prices.** Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers--about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).

**Stock Change (Refined Products).** Component of Product Supplied calculation shown on U.S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way; an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data; a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by: 1) computing an average daily rate of stock change for each month based on monthly data for the past six years; 2) using this daily rate and the minor stock levels from the most recent monthly publication to estimate the minor product stock level for the current period.

**Stocks.** For individual products in the WPSR, quantities held at refineries, in pipelines, and at bulk terminals which have a capacity of 50 thousand barrels or more, and in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."

**Unaccounted-for Crude Oil.** A term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about disposition. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using final data. In fact, the published figures confirm this expectation. In the WPSR, four-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous year is considerably smaller than that for the current period.

**United States.** For the purpose of the report, the 50 states and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. Totals.



## SOURCES

### Page 4

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly," except January 1984 operable capacity which is from the EIA's "Petroleum Supply Annual."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 5

- o 1983, EIA, "Petroleum Supply Annual".
- o Monthly Data: 1984-1985, EIA, "Petroleum Supply Monthly," except for January 1984 operable capacity which is from the EIA's "Petroleum Supply Annual."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 6

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 7

- o Data for Ranges and Seasonal Patterns: 1977-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981-1983, EIA, "Petroleum Supply Annual," 1984, EIA, "Petroleum Supply Monthly."
- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 8

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 9

- o Data for Ranges and Seasonal Patterns 1978-1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981-1983, EIA, "Petroleum Supply Annual," 1984, EIA, "Petroleum Supply Monthly."
- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 10

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 11

- o Ranges and Seasonal Patterns 1977-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981-1983, EIA, "Petroleum Supply Annual," 1984, EIA, "Petroleum Supply Monthly."
- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 12

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 13

- o Ranges and Seasonal Patterns 1977-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981-1983, EIA, "Petroleum Supply Annual," 1984, EIA, "Petroleum Supply Monthly."
- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 14

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 15

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual."
- o 1984-1985, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 16

- o Monthly Data: 1983, EIA, "Petroleum Supply Annual," 1984-1985, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.
- o Projections: EIA, Office of Energy Markets and End Use (January 1985).

Page 17

- o Refiner Acquisition Cost of Crude Oil: Form EIA-14, "Refiners Monthly Cost Report."
- o Motor Gasoline - Bureau of Labor Statistics. See glossary description for "Retail Motor Gasoline Prices."
- o Residential Heating Oil--1983-1984: Forms EIA-782A, "Monthly Petroleum Product Sales Report," and EIA-782B, "Monthly No. 2 Distillate Sales Report."

Pages 18 and 19

- o EIA, International & Contingency Information Division, May 7, 1985.
- o Platt's Oilgram Price Report.
- o Petroleum Intelligence Weekly.
- o Oil Buyers' Guide, International.

Pages 20 and 21

- o EIA, International & Contingency Information Division.
- o Oil Buyers' Guide. Not published weeks of July 4 and December 25.

Page 23

- o FPC-8/EIA-191, "Underground Gas Storage Report."

Page 24

- o Monthly Data: 1985, EIA, "Petroleum Supply Monthly."

Energy Information Administration  
Electronic Publication System (EPUB)  
User Instructions

Selected weekly Petroleum Status Report (WPSR) and Petroleum Supply Monthly (PSM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine readable statistics is possible by dialing (202) 252-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although there is not a required password, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday thru Friday, 10:00 a.m. - 6:00 p.m., weekends and holidays). Weekly statistics are updated on Wednesday (Thursday in the event of a Holiday) after 5:00 p.m. Monthly data for the current available month is also provided and is updated by 5:00 p.m. on the 24th of the month. Questions or comments should be directed to T.C. Swann at (202) 252-1155.

Access Instructions:

- 1) DIAL (202) 252-8658
- 2) HIT RETURN (CARRIAGE RETURN) ONCE TO ESTABLISH BAUD RATE AND  
TYPE "LOGON" TO LINK TO EIA DIAL FOLLOWED BY A SECOND RETURN

LOGON

\*\*\*

\*\*\*

\*\*\*

\*\*\*

\*\*\*

WELCOME TO THE  
ENERGY INFORMATION ADMINISTRATION  
ELECTRONIC PUBLICATION SYSTEM

\*\*\*

\*\*\*

\*\*\*

\*\*\*

\*\*\*

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU

THE FOLLOWING REPORTS ARE AVAILABLE.  
WPSR - WEEKLY PETROLEUM STATUS REPORT  
PSMR - PETROLEUM SUPPLY MONTHLY  
STKS - PSM STATE STOCKS TABLE  
PLEASE ENTER THE DESIRED REPORT ID...  
WPSR

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER

\$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984  
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO  
ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT

YOU HAVE SELECTED WEEKLY STATISTICS FROM THE  
WEEKLY PETROLEUM REPORTING SYSTEM. THIS  
SYSTEM WILL DISPLAY THE LATEST U.S. PETROLEUM  
BALANCE SHEET AND THE MOST RECENT 5 WEEKS OF  
WEEKLY PETROLEUM STATUS REPORT DATA. PLEASE  
TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN  
HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

```
*****
*
* Note: Users who experience problems when first attempting to logon
* should check their terminal switch settings for the following:
*
*      o 7 Data Bits
*      o 1 Stop Bit
*      o Even Parity
*
*****
```